

# APPENDIX A

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## Transportation Study

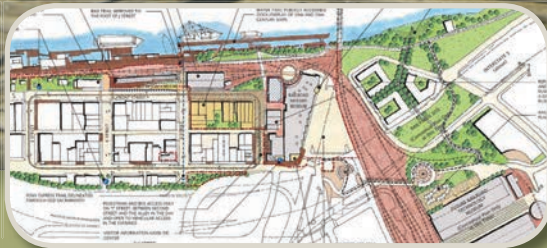




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*Final*

***Transportation Study for the  
Old Sacramento State Historic Park  
and California State Railroad Museum  
General Plan***

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## **1. INTRODUCTION**

At the height of the Gold Rush, the Sacramento River served as the City's central transportation artery, and Old Sacramento was the City's core. In 1869, the Transcontinental Railroad was completed, and quickly supplanted the river as Sacramento's primary transportation artery. Modern day Sacramentans drive downtown on Interstate 5 (I-5), one of the busiest freeways in the region; or across the Tower Bridge, West Sacramento's primary connection to the Central Business District. These four key transportation corridors serve as Old Sacramento Historic District's (Old Sacramento's) boundaries: the Union Pacific Railroad/I Street Bridge to the north, the Tower Bridge/Capitol Mall to the south, I-5 to the east, and the Sacramento River to the west. Indeed, Old Sacramento lies at the heart of City's transportation system, and is accessible by automobile, boat, bus, train, bicycle, or on foot.

This study analyzes the potential impacts of the proposed Old Sacramento State Historic Park (OSSHP) General Plan upon the surrounding multi-modal transportation system. OSSHP consist of several dispersed components concentrated in the northern half of Old Sacramento. The planning area addressed in the General Plan also includes an excursion train line that currently runs south from Old Sacramento along the eastern bank of the Sacramento River for approximately three miles, and its associated 16 plus miles of railroad right-of-way on the heritage Sacramento Southern railroad line, owned mostly by State Parks (with the exception of four-miles of right-of-way between the Land Park and Pocket/Meadowview areas, owned by the Sacramento Regional Transit District and a permanent easement from the City on City-owned property in Old Sacramento). Additional components within the planning area proposed to house or serve the Railroad Technology Museum (RTM) include two of the remaining Central Shops buildings, a turntable, transfer table, and firing line on the Railyards site.

The impact analysis conducted for this study evaluated the roadway, waterway, transit, bicycle, and pedestrian components of the overall transportation system under the following scenarios:

- Existing Conditions
- Existing Plus Project Conditions
- Cumulative Conditions
- Cumulative Plus Project Conditions

## **PROJECT DESCRIPTION**

The General Plan represents a long-term (approximately 20 years) vision for the future of the OSSHP. The Preferred Alternative Plan includes numerous enhancements to existing components of OSSHP, in addition to new facilities, all of which are intended to improve the visitor experience within OSSHP and assist the park in achieving its long-term vision. Components of the Plan include the following:

- **Visitor Gateways** – identify arrival into OSSHP
- **Directional Signage** – identifies the location of specific destinations within the park
- **Visitor Kiosks** – new kiosks to provide materials/information to visitors
- **Riverfront Improvements** – pedestrian and bicycle circulation improvements; additional amenities including seating, exhibits, and signage; development of a new dock for the display of historic ships, boat moorage, and the potential operation of a water taxi service
- **1849 Scene/Future Gold Rush and Commerce Block** – reconstruction of a historic commercial block located on what is currently a large open grassy slope, located on Front Street between I Street and J Street, consisting of three levels: an excavated underground level to be used as a museum to expose and convey the original Gold Rush period elevation and experiences in Sacramento, interpret the archaeological remains found on-site, and the transformation to the architecture, development, and landscape of the City, following the city's recurring history with floods and fires; a street grade level with reconstructions of select commercial buildings and activities and period-style concessions from the 1860s and 1870s period and potential location for a Visitor Center; and a second story level housing State Park offices, potentially, a hotel, interpretive facilities, and other commercial concessions
- **Pony Express Trail** – enhance existing Pony Express Plaza on the corner of 2<sup>nd</sup> Street and I Street with additional visitor amenities, and identify the Pony Express Trail route through Old Sacramento using signage and interpretive materials
- **California State Railroad Museum Improvements** – construction of the RTM as an approximately 152,000 square foot new facility, occupying the former Southern Pacific Railroad's Boiler Shop and Erecting Shop; potential addition of a catering kitchen on the

north side of the existing Railroad History Museum (RHM) building; and a new entrance on the east side of the existing RHM building for school and tour groups

- **Big Four Building** – uses and interpretation to be further considered in a future Interpretive Master Plan, with potential for repurposing the Stanford Gallery to interpret its former historic commercial uses and/or other opportunities to interpret the significance of the Big Four Buildings
- **Dingley Steam Coffee and Spice Mill** – repurposing of the first floor as a coffee shop
- **Central Pacific Railroad Passenger Station Improvements** – expanded boarding stand and ticketing for the excursion train line, new restaurant concession, and restroom improvements
- **Central Pacific Railroad Freight Depot Improvements** – removal of the public market additions, addition of new interpretive exhibits
- **Expanded Excursion Train Operations** – new service between Old Sacramento and the Sacramento Zoo (via an extension of the existing train route), new service between the Pocket/Meadowview neighborhood and the town of Hood
- **Horse-drawn Streetcar** – new horse-drawn streetcar transit, serving visitors to Old Sacramento via a demonstration line, traveling between Front Street and I Street, on State Park property

## STUDY INTERSECTIONS

Study intersections were selected based on the expected travel characteristics associated with the project (i.e., project location and amount of project trips), as well as the susceptibility of nearby intersections to increased traffic due to implementation of the project. The following six intersections were studied as part of the transportation analysis:

1. I Street/3rd Street
2. I Street/5th Street
3. J Street/3rd Street
4. J Street/5th Street
5. Capitol Mall/Neasham Circle
6. O Street/Front Street

## DATA COLLECTION

To provide a baseline for the transportation analysis, traffic counts were collected at the six study intersections, all located within the City of Sacramento. The counts occurred on Tuesday, September 21, 2010 during the AM (7:00 AM – 9:00 AM) and PM peak periods (4:00 PM – 6:00 PM) of the roadway system surrounding Old Sacramento. During the counts, weather conditions were generally dry and local schools were in full session. Pedestrians and bicyclists were also counted at each of the study intersections.

Each intersection's peak hour within the peak period was used for the analysis. For the majority of study intersections, the counts indicate that the AM peak hour is between 8:00 AM and 9:00 AM and the PM peak hour is between 4:30 PM and 5:30 PM.

During the collection of the traffic counts, freeway off-ramp queues from northbound and southbound I-5 to J Street were also observed.

## STANDARDS OF SIGNIFICANCE

In accordance with CEQA, the lead agency evaluates the effects of a proposed project to determine if they could result in significant adverse impacts on the environment. The standards of significance in this analysis are based upon the current practices of the City of Sacramento, documented within the *Sacramento 2030 General Plan* (2009) and *Traffic Impact Analysis Guidelines* (1996). Under CEQA, the City of Sacramento is the local responsible agency.

In addition to the City standards, Caltrans considers it an impact if the addition of project trips causes a queue on the off-ramp approach to a ramp terminal intersection to extend beyond its storage area and onto the freeway mainline. For the purposes of this analysis, an impact is considered significant if implementation of the project would result in any of the following:

### ***Bicycle Facilities:***

Impacts to bicycle facilities are considered significant if the proposed project would:

- Adversely affect existing or planned bicycle facilities; or
- Fail to adequately provide for access by bicycle

### ***Pedestrian Circulation:***

Impacts to pedestrian circulation are considered significant if the proposed project would:

- Adversely affect existing or planned pedestrian facilities; or
- Fail to adequately provide for access by pedestrians

**Transit Facilities:**

Impacts to the transit system are considered significant if the proposed project would:

- Adversely affect public transit operations; or
- Fail to adequately provide access to transit

**Freeway Facility Ramps:**

Caltrans considers the following to be a significant impact:

- Off-ramps with vehicle queues that extend into the ramp's deceleration area or onto the freeway (i.e., exceed the available storage capacity)

**Intersections:**

A significant traffic impact occurs when:

- The traffic generated by the project degrades level of service (LOS) from an acceptable LOS (without the project) to an unacceptable LOS (with the project);
- The level of service (without project) is unacceptable and project generated traffic increases the average vehicle delay by 5 seconds or more

Policy M 1.2.2 contained in the *Mobility Element* of the *Sacramento 2030 General Plan* sets forth definitions for what is considered an acceptable level of service. The following excerpt from the level of service policy is relevant to this study:

M 1.2.2 The City shall allow for flexible Level of Service (LOS) standards, which will permit increased densities and mix of uses to increase transit ridership, biking, and walking, which decreases auto travel, thereby reducing air pollution, energy consumption, and greenhouse gas emissions.

- a. Core Area Level of Service Exemption—LOS F conditions are acceptable during peak hours in the Core Area bounded by C Street, the Sacramento River, 30th Street, and X Street. If a Traffic Study is prepared and identifies a LOS impact that would otherwise be considered significant to a roadway or intersection that is in the Core

Area as described above, the project would not be required in that particular instance to widen roadways in order for the City to find project conformance with the General Plan. Instead, General Plan conformance could still be found if the project provides improvements to other parts of the citywide transportation system in order to improve transportation-system-wide roadway capacity, to make intersection improvements, or to enhance non-auto travel modes in furtherance of the General Plan goals. The improvements would be required within the project site vicinity or within the area affected by the project's vehicular traffic impacts. With the provision of such other transportation infrastructure improvements, the project would not be required to provide any mitigation for vehicular traffic impacts to road segments in order to conform to the General Plan. This exemption does not affect the implementation of previously approved roadway and intersection improvements identified for the Railyards or River District planning areas.

Therefore, all six study intersections are located within the Core Area defined in Policy M 1.2.2 and are governed by M 1.2.2 (a). LOS F is acceptable at these locations during peak hours, provided that the project provides improvements to other parts of the citywide transportation system within the project site vicinity (or within the area affected by the project's vehicular traffic impacts) to improve transportation-system-wide roadway capacity, to make intersection improvements, or to enhance non-auto travel modes in furtherance of the General Plan goals. Road widening or other improvements to road segments are not required.

## **ANALYSIS METHODOLOGY**

All intersections were analyzed using procedures and methodologies contained in the *Highway Capacity Manual* (HCM) (Transportation Research Board, 2000). These methodologies were applied using Synchro<sup>1</sup>, a traffic operations analysis software package.

The HCM methodologies determine a level of service (LOS) for each study intersection. Level of service is a qualitative measure of traffic operating conditions whereby a letter grade, from A (the best) to F (the worst), is assigned. These grades represent the perspective of drivers and are an indication of the comfort and convenience associated with driving. In general, LOS A

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<sup>1</sup> Trafficware, 2005

represents free-flow conditions with no congestion, and LOS F represents severe congestion and delay under stop-and-go conditions. Table 1 presents the intersection LOS thresholds.

<b>Table 1</b> <b>Intersection Level of Service Thresholds</b>		
Level of Service	Average Control Delay (seconds/vehicle) <sup>1</sup>	
	Signalized Intersection	Unsignalized Intersection
A	0 – 10.0	0 – 10.0
B	10.1 – 20.0	10.1 – 15.0
C	20.1 – 35.0	15.1 – 25.0
D	35.1 – 55.0	25.1 – 35.0
E	55.1 – 80.0	35.1 – 50.0
F	> 80.0	> 50.0
Notes: 1. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and acceleration delay. Source: <i>Highway Capacity Manual</i> , Chapter 16 (Signalized Intersections) and Chapter 17 (Unsignalized Intersections), Transportation Research Board, 2000.		

Typical of a downtown business district, the capacity of some study area intersections may be adversely affected by operational and physical characteristics such as parking maneuvers, vehicle blockages, transit activity, small-radius turns and high pedestrian activity. Consistent with the methodology provided in the *Highway Capacity Manual* (Transportation Research Board, 2000), the vehicle headway factors were increased at three study intersections (intersection numbers two through four) to address the issue of regular and frequent interference.

### ***Detailed Intersection Analysis Assumptions and Methodologies***

The following assumptions and methodologies were applied during the analysis of study intersections:

- Per HCM procedures, the level of service (LOS) for signalized and all-way stop-controlled intersections was based on the average control delay for all vehicles
- September 2010 pedestrian counts were incorporated into the analysis

- Signalized intersections were analyzed using the most up-to-date traffic signal timings provided by the City of Sacramento
- Per the City of Sacramento's *Traffic Impact Analysis Guidelines* (1996), a peak hour factor (PHF) of 1.00 was assumed for all existing and cumulative scenarios
- Intersection peak hour heavy vehicle<sup>2</sup> percentages were set at 2 percent

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<sup>2</sup> As defined by the *Highway Capacity Manual*, a heavy vehicle is any "vehicle with more than four wheels touching the pavement during normal operation."

## 2. EXISTING CONDITIONS

This chapter describes the physical and operational characteristics of the transportation system within the study area.

### PROJECT AREA TRANSPORTATION FACILITIES

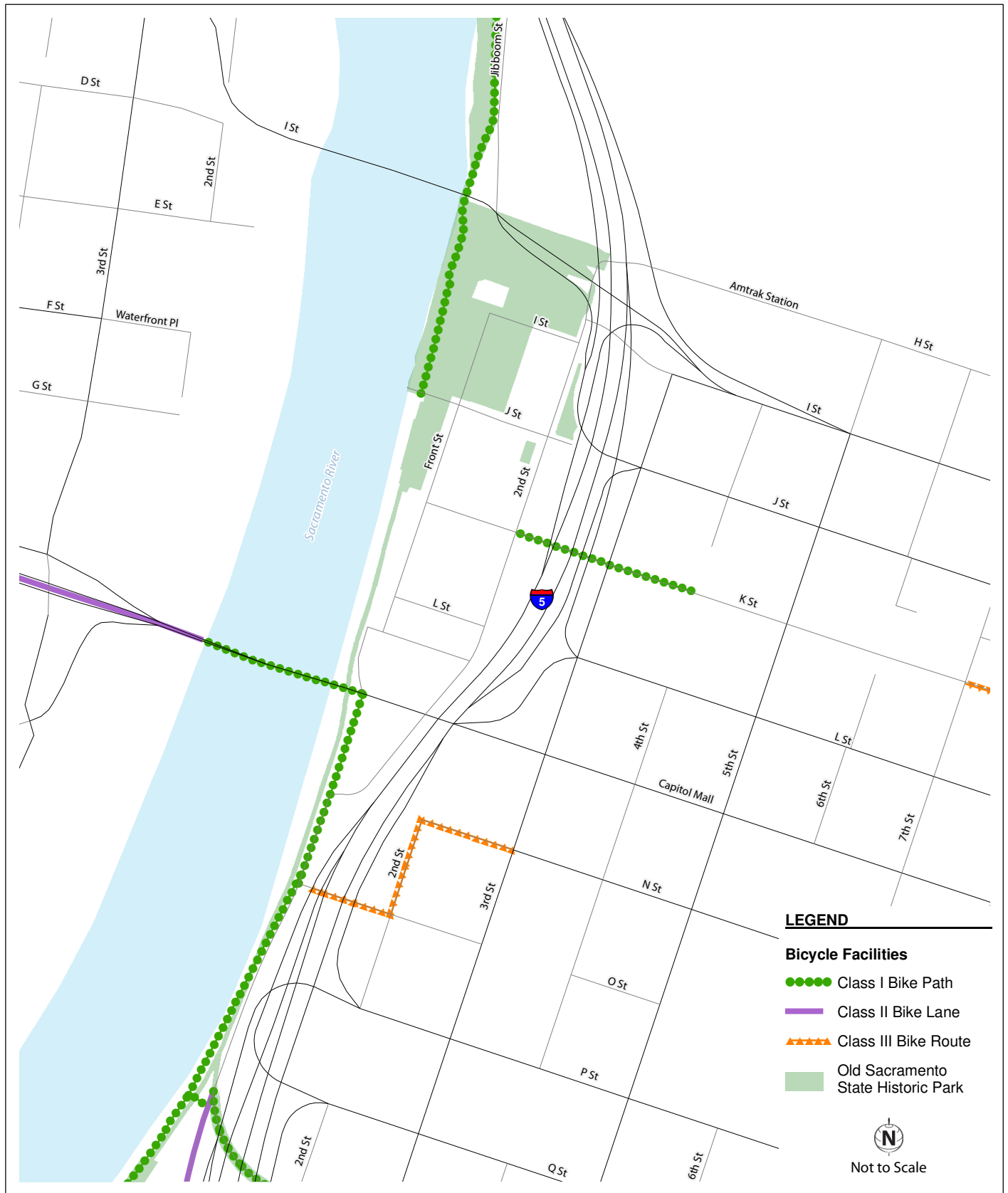
Within Old Sacramento, a well-connected gridded system of streets provides access to businesses and attractions. Streets within Old Sacramento have two bidirectional travel lanes, a mixture of parallel and angled on-street parking, and are designed for vehicles to operate at low travel speeds. Front Street is paved with cobblestones between Neasham Circle and J Street, which results in lower vehicle travel speeds.

Streets in Old Sacramento are lined with sidewalks on both sides, most of which are approximately 15 feet wide and constructed of wooden planks raised above the roadway. Sidewalk ramps have recently been upgraded to comply with the Americans with Disabilities Act. Additionally, an approximately thirty-foot wide boardwalk stretches along the western edge of OSSHP between the Sacramento River and



the tracks for the California State Railroad Museum's excursion train. The boardwalk extends to the northwest corner of OSSHP where it connects with the Sacramento River Parkway Multi-Use Trail and American River Parkway, which stretches 33 miles from Sacramento to Folsom Lake (see image above).

Additional Class I off-street bicycle facilities currently serving the area include a trail along the eastern bank of the Sacramento River south of Capitol Mall, a connection to Old Sacramento across the Tower Bridge, and a connection to Downtown Plaza via an undercrossing of I-5 and 3<sup>rd</sup> Street. 2<sup>nd</sup> Street is also designated as a Class III on-street bike route through Old Sacramento. Figure 1 displays a map of existing bicycle facilities surrounding Old Sacramento.



## REGIONAL TRANSPORTATION FACILITIES

A sidewalk-lined system of gridded streets also exists on the east side of I-5 in Downtown Sacramento. However, unlike within Old Sacramento, streets on the east side of the freeway have three to five travel lanes designed to handle large volumes of regional commuter traffic, and many of the major roadways in Downtown are one-way facilities.

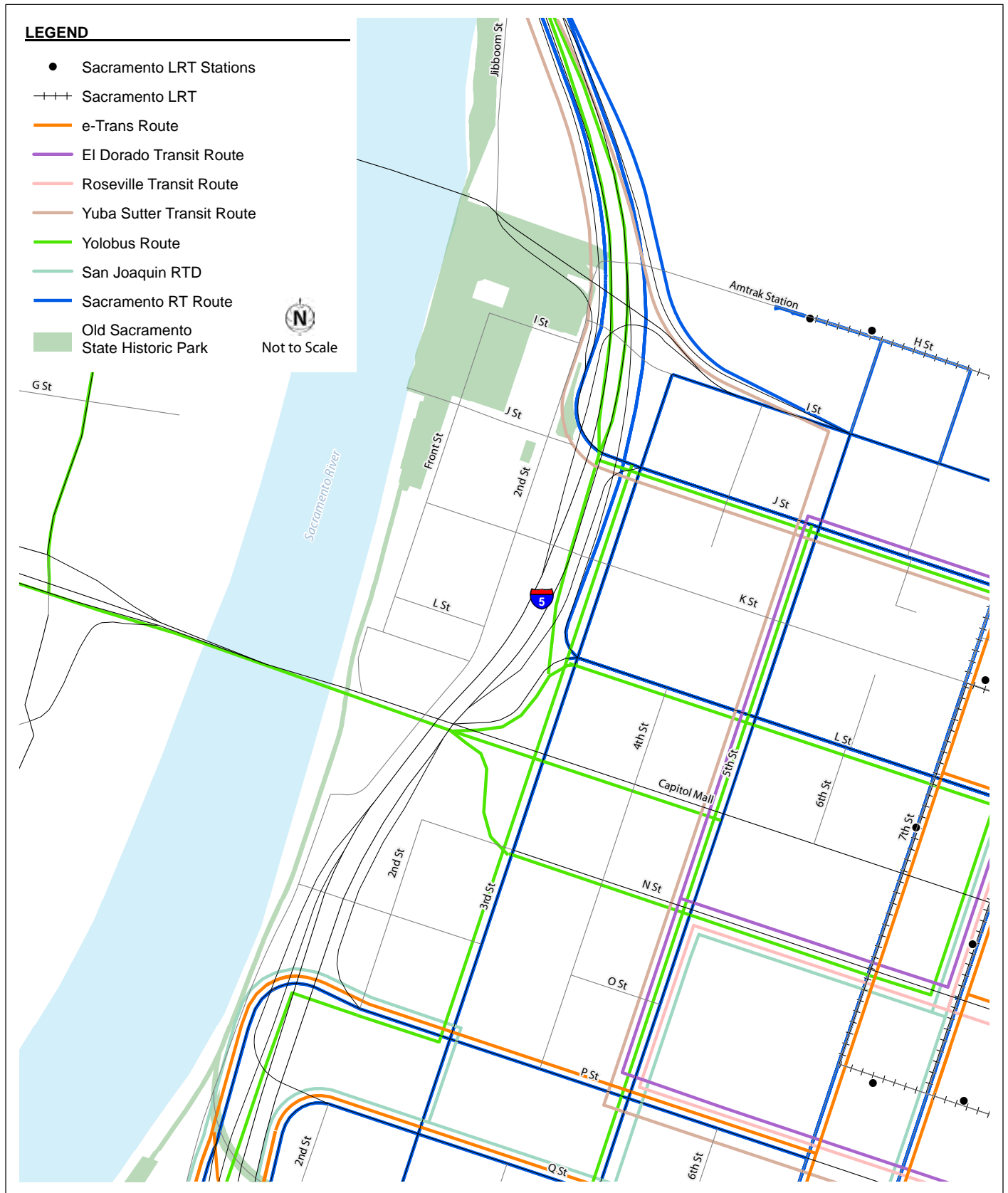
The City's Amtrak station, one of the ten busiest in the nation,<sup>3</sup> is located only a few hundred feet to the northeast of Old Sacramento on the opposite side of I-5. Two long distance Amtrak routes, the Coast Starlight (Seattle-Portland-Sacramento-Log Angeles) and the California Zephyr (Emeryville-Sacramento-Denver-Chicago) serve the station in addition to two Amtrak California regional routes, the Capitol Corridor (San Jose-Sacramento-Auburn), and the San Joaquin (Sacramento-Bakersfield). Regional Transit's (RT) Gold Line also connects the Amtrak station to the Sacramento region's light rail transit network.

Regional Transit provides a majority of the public transit service (light rail and bus) within the study area as shown in Figure 2. However, bus transit service connecting Sacramento to the surrounding region is also provided by Yolobus, Folsom Stage Lines, Yuba-Sutter Transit, Roseville Transit, El Dorado Transit, Elk Grove Transit (e-Trans), and the San Joaquin Regional Transit District.

Access to the regional freeway system from Old Sacramento is provided via on-ramps to I-5 at I Street and L Street, and off-ramps at J Street. Interstate 5 extends the length of California and into Oregon and Washington. Within the study area, this freeway serves as a vital link between the primarily residential neighborhoods to the north and south of Downtown and the Central Business District. Interstate 5 also provides easy access from Old Sacramento to the region's two major east-west freeways, Interstate 80 and US Highway 50 (US-50). Adjacent to Old Sacramento, I-5 has four northbound and four southbound travel lanes. South of the I Street merge, southbound I-5 gains a fifth lane that serves as an auxiliary lane between the I Street on-ramp and the US-50/Business 80 off-ramp.

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<sup>3</sup> Amtrak's Fiscal Year 2009 *National Fact Sheet* lists Sacramento as 7<sup>th</sup> in total Amtrak ridership.



## ROADWAY NETWORK

The characteristics of several key roadway facilities in the vicinity of OSSHP are described in greater detail below:

- **Capitol Mall** is a four-lane east-west divided roadway within the study area. Capitol Mall originates on the west at the Tower Bridge, and is a continuation Tower Bridge Gateway, a roadway that connects to Business Route 80 in West Sacramento. Capitol Mall terminates on the east at 10<sup>th</sup> Street at the State Capital. A grass median, approximately 40 feet wide, separates eastbound and westbound traffic within the study area.
- **I Street** is a three to four-lane one-way (westbound) roadway within the study area. I Street originates on the east at 28<sup>th</sup> Street and terminates on the west at Front Street in Old Sacramento. I Street serves as one of the primary gateways to OSSHP, and also has on-ramps to northbound and southbound I-5. Motor vehicle traffic is not permitted on I Street between Front Street and Commonwealth Alley.
- **J Street** is a three to four-lane one-way (eastbound) roadway within the study area and forms a couplet with I Street through Downtown Sacramento. J Street originates on the west at I-5, fed by off-ramps from northbound and southbound I-5. J Street continues through Downtown and Midtown Sacramento, and eventually transitions into Fair Oaks Boulevard east of the American River. A separate discontinuous segment of J Street exists within Old Sacramento between the Sacramento River and I-5.
- **3rd Street** varies from a three-lane divided roadway to a three-lane one-way (southbound) roadway within the study area. Third Street originates on the north at I Street and terminates on the south at Broadway. The western side of 3<sup>rd</sup> Street between I Street and O Street lacks sidewalks.
- **5<sup>th</sup> Street** is primarily a three-lane one-way (northbound) roadway within the study area. Fifth Street originates on the south at 4<sup>th</sup> Avenue and terminates on the north at H Street. Fifth Street has two-way travel between J Street and L Street as it passes under the Downtown Plaza mall. Future plans call for the extension of 5<sup>th</sup> Street northward to North B Street as part of the Railyards Redevelopment Project.
- **Front Street** is a two-lane north-sound roadway that runs along the eastern bank of the Sacramento River. Front Street is discontinuous on either side Capitol Mall, with a northern segment that travels through Old Sacramento connecting Neasham Circle to I Street, and a southern segment that runs from Miller Park before transitioning into 2<sup>nd</sup>

Street just south of Capitol Mall. The northern segment of Front Street within Old Sacramento is paved with cobblestones, and north of J Street vehicular access is prohibited.

- **Neasham Circle** – is a two-lane local roadway that provides access to Old Sacramento via a signalized intersection with Capitol Mall. Neasham Circle connects Capitol Mall to 2<sup>nd</sup> Street within Old Sacramento.
- **I Street Bridge:** The I Street Bridge has one travel lane in each direction, and serves largely as a local connection between West Sacramento and Downtown Sacramento. It has the northernmost location of the three bridges connecting the two cities. Between the I Street crossing on the east side of West Sacramento, and the Bryte Bend Bridge (which carries Interstate 80 over the Sacramento River) in the northwestern corner of West Sacramento, no other river crossings exist. The I Street Bridge carries approximately 12,700 vehicles per day. In addition to motor vehicles, the I Street Bridge also accommodates pedestrians and bicyclists. However, sidewalks on the bridge are narrow and are directly adjacent to the vehicle travel lanes, and no bicycle lanes are provided. No transit routes currently make use of the I Street Bridge.
- **Tower Bridge:** The Tower Bridge is located less than a half a mile south of the I Street Bridge on the Sacramento River. This crossing has four motor vehicle travel lanes (two in each direction) in addition to striped shoulders which are used by bicyclists. Bicyclists may also share the Tower Bridge's wide protected sidewalks with pedestrians. This bridge carries about 20 percent more traffic than the I Street Bridge, handling approximately 15,600 vehicles per day on a weekday (May 2010 traffic count revealed that the volume on the bridge is approximately 30 percent less on a Saturday). Numerous transit routes use the Tower Bridge to travel between West Sacramento and Downtown Sacramento.

## PROJECT AREA ACCESS

Despite its proximity to several of the region's major transportation investments, accessing Old Sacramento represents a challenge for many visitors, especially during high visitation events. Old Sacramento's location between the Sacramento River, Union Pacific Railroad tracks, and I-5 results in a limited number of access points into and out of OSSHP. As shown in Table 2, when not considering boat access from the Sacramento River, Old Sacramento has only five access points. Two of these five access points serve bicycles and pedestrians only.

**Table 2**  
**Access Points to Old Sacramento**

<b>Access Point</b>	<b>Motor Vehicle Access</b>	<b>Bicycle/Pedestrian Access</b>
1. Neasham Circle	✓	✓
2. 2 <sup>nd</sup> Street	✓	✓
3. K Street		✓
4. I Street	✓	✓
5. Sacramento River Parkway Multi-Use Trail		✓

While there are three access points open to motor vehicle traffic, the current configuration of the Front Street gateway is somewhat circuitous because Front Street is depressed below grade at Capitol Mall. Rather than being able to turn directly onto Front Street from Capitol Mall, visitors to OSSHP must travel an additional half mile to connect to Front Street via 3rd Street and O Street in order to use this gateway.

This configuration makes this gateway less attractive to all modes of travel, but especially to bicyclists and pedestrians who are more affected by increased travel distance. Additionally, the existing sidewalks on the segment of Front Street beneath Capitol Mall are narrow and have no buffer between the sidewalk and adjoining travel lanes (see image to right). The design of these sidewalks, combined with the circuitous nature of this access, limit the gateway's effectiveness as a pedestrian entry/exit to Old Sacramento.



Recent modifications to 3rd Street on the east side of I-5 have added a northbound travel lane between I Street and J Street. Previously, this segment of roadway was one-way southbound. This previous configuration required motorists exiting I-5 at J Street to travel two blocks out of their way to access the I Street gateway into Old Sacramento. With the addition

of the northbound lane on 3rd Street, motorists exiting I-5 and traveling to the I Street access point travel 2,000 fewer feet than under the previous configuration.

The I Street access point to Old Sacramento also serves as the pedestrian connection to Sacramento's railroad depot, linking visitors to Amtrak, RT light rail, and Amtrak California. Although the station is only a few hundred feet from the northeastern corner of Old Sacramento, the existing connection requires pedestrians and bicyclists to navigate their way through a dimly lit parking lot located beneath a freeway interchange (see image to left). The route to the Amtrak station is well marked, but the connection currently lacks inviting pedestrian/ bicycle facilities.



The segment of I Street immediately east of Old Sacramento crosses beneath I-5 and serves as a primary vehicular gateway into Old Sacramento, but has several attributes which decrease its desirability as a pedestrian gateway. East of 3<sup>rd</sup> Street, sidewalks exist on only the southern side of I Street; west of 3<sup>rd</sup> Street, sidewalks exist on only the northern side of the roadway. The relatively narrow sidewalks on the segment of I Street beneath I-5 have no buffer between the roadway and the adjacent travel lane, and lack pedestrian scale lighting.

The intersections on either side of this segment, I Street/3<sup>rd</sup> Street and I Street/2<sup>nd</sup> Street, also have features that present challenges to pedestrian mobility. The westbound approach to the I Street/2<sup>nd</sup> Street intersection is uncontrolled, while the northbound and southbound legs are stop-controlled. Of the three approaches to this intersection, only one (southbound) has a marked crosswalk. The I Street/3<sup>rd</sup> Street intersection also lacks a marked crosswalk on the eastbound approach. The existing sidewalks and crosswalks at the I Street gateway to Old Sacramento do not adequately provide a direct path for convenient pedestrian travel.

The project list for the City of Sacramento's Year 2010 Streetscape Enhancement Program currently lists the I Street Gateway to Old Sacramento (defined as I Street between 2<sup>nd</sup> Street and 5<sup>th</sup> Street) as the fifth highest priority for "other corridors" (i.e., non commercial corridors).

Opportunities for additional access points to Old Sacramento from the north may be possible, in connection with the development of the Railyards site, but require further future planning and coordination with the City and property owners of the Railyards property.

## **PARKING**

Within one-quarter of a mile from Old Sacramento, there are approximately 11,000 off-street parking spaces.<sup>4</sup> Additionally, a mixture of parallel and angled on-street parking lines most streets within the historic district. On-street parking spaces are metered, with meter enforcement occurring seven days a week, while off-street parking decks typically charge an hourly rate.

Although numerous parking opportunities exist within a close walk of Old Sacramento's attractions, many visitors make use of two parking decks owned by the City of Sacramento. These two public decks, one located at each of the two access points to Old Sacramento most heavily utilized by motor vehicle traffic, offer a combined 1,329 spaces (451 spaces in the deck located off of Neasham Circle and 878 spaces located in the deck accessed off of I Street).

In addition to these City-owned decks, four public parking decks at Downtown Plaza combine to offer nearly 4,000 spaces. These spaces are located on the opposite side of I-5 from Old Sacramento, and are connected to Old Sacramento via the K Street pedestrian/bicycle access point.

## **RAIL CROSSING**

An at-grade Sacramento Southern Railroad crossing of Capitol Mall traverses the western leg of Capitol Mall/Neasham Circle study intersection. According to data provided by the Sacramento Southern Railroad/California State Railroad Museum, 1,306 train movements occurred in 2010 resulting in an average of just under four trains per day. Higher levels of train activity occur on weekends versus weekdays due to excursion train operations from OSSHP. This crossing is currently equipped with traffic signal preemption, warning signage, crossing arms, warning bells, and flashing lights.

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<sup>4</sup> According to Draft Downtown Off-Street Parking Supply data produced by the City of Sacramento in January, 2010.

## WATER TRANSPORTATION

The Sacramento River forms the western border of Old Sacramento. At the height of the Gold Rush, the section of river adjacent to Old Sacramento served as the City's central transportation artery. Although the river no longer serves this function, the Sacramento River is still used for transport, and a significant number of boat trips pass by OSSHP on a daily basis. Recreational traffic comprises the majority of boat trips on the segment of river adjacent to Old Sacramento. However, commercial river cruises operated by Hornblower Cruises & Events also utilize the river and operate from a dock located within Old Sacramento. In addition to the docks within Old Sacramento, two public boat launches are located within one mile of OSSHP:

- **The Broderick Boat Ramp** is located approximately one third of a mile upriver from Old Sacramento on the western bank of the Sacramento River. This public facility is operated by the City of West Sacramento, and has amenities including a picnic area and restrooms.
- **The Discovery Park Boat Ramp** is located approximately one mile upriver from Old Sacramento on the eastern bank of the Sacramento River. This public facility is operated by the Sacramento County Regional Parks Department.

## INTERSECTION OPERATIONS

Figure 1 displays the existing AM and PM weekday peak hour traffic volumes, as well as the current lane configurations and traffic controls present at each of the six study intersections. Table 3 summarizes the existing peak hour intersection operations at the study intersections (refer to separate Appendix A for detailed calculations). As shown, all signalized and unsignalized intersections currently operate at LOS E or better.

Overall, the existing roadway system within the area can be characterized as operating efficiently. Motorists typically incur modest delays, do not experience substantial vehicle queues, and benefit from the coordinated traffic signal system along the primary commute corridors that connect downtown to the regional freeway system. The intersection of J Street/3rd Street is the most congested of all study locations due primarily to competing traffic flows entering downtown from the northbound and southbound I-5 off-ramps. It should be noted that all three intersections that provide motor vehicle access into and out of Old Sacramento currently operate with very low levels of delays (LOS A) during both peak hours.

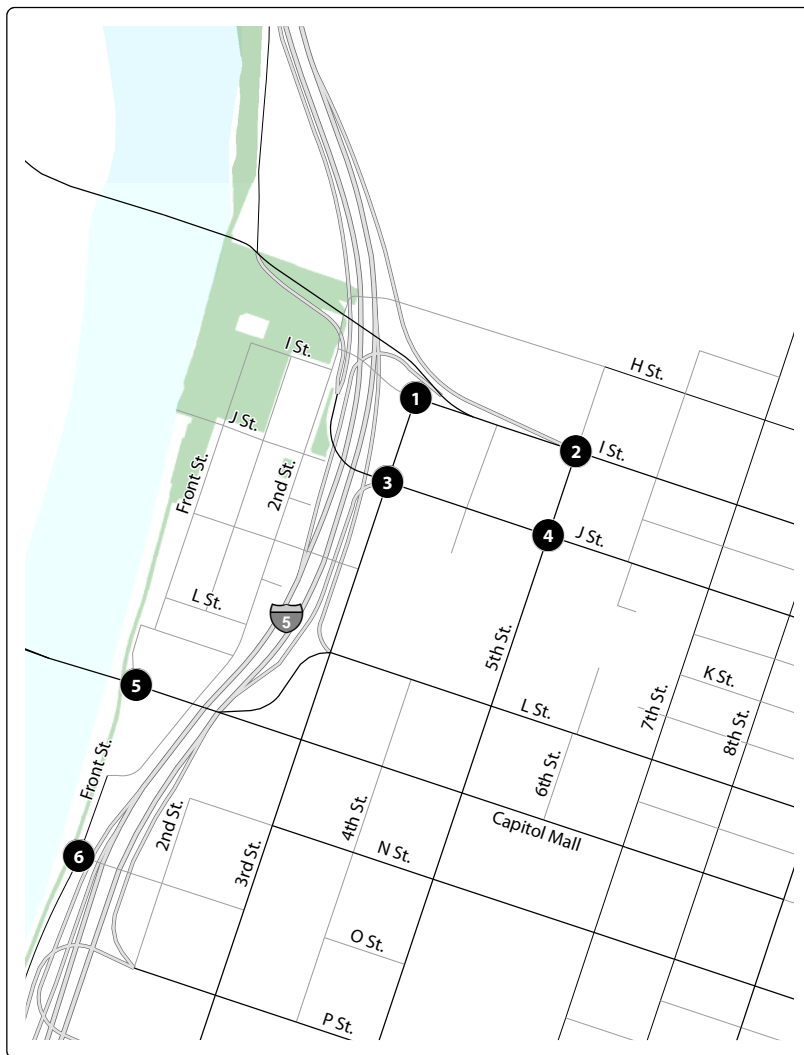
**Table 3**  
**Intersection Level of Service – Existing Conditions**

Intersection	Control	Peak Hour	Delay <sup>1</sup>	LOS
1. I Street/3rd Street	All-Way Stop	AM PM	8 9	A A
2. I Street/5th Street	Traffic Signal	AM PM	13 16	B B
3. J Street/3rd Street	Traffic Signal	AM PM	58 37	E D
4. J Street/5th Street	Traffic Signal	AM PM	16 16	B B
5. Capitol Mall/Neasham Circle	Traffic Signal	AM PM	5 5	A A
6. O Street/Front Street	All-Way Stop	AM PM	7 8	A A
Notes: Average intersection delay is reported in seconds per vehicle for all approaches. Source: Fehr & Peers, 2011.				

Freeway off-ramp queues from I-5 to the J Street/3<sup>rd</sup> Street intersection were also observed under existing conditions. As shown in Table 4, all study freeway off-ramps are within their storage areas during the AM and PM peak hours.

**Table 4**  
**Off-Ramp Queuing – Existing Conditions**

Off-Ramp	Storage Length	Peak Hour	Queue <sup>1</sup>
1. I-5 Northbound – Off-ramp to J Street	1,025 feet	AM PM	975 feet 875 feet
2. I-5 Southbound – Off-ramp to J Street	1,475 feet	AM PM	550 feet 250 feet
Notes: <sup>1</sup> Queue length is the maximum queue observed during peak period field observations conducted in September 2010, rounded to the nearest 25 feet. Source: Fehr & Peers, 2011.			



## LEGEND

Turn Lane

AM (PM) Peak Hour Traffic Volume

1 Study Intersection

Traffic Signal

Stop Sign

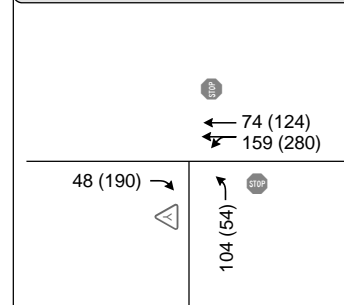
Yield Sign

Old Sacramento State  
Historic Park

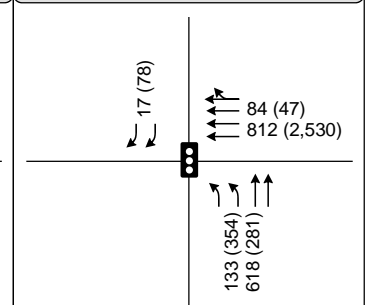


Not to Scale

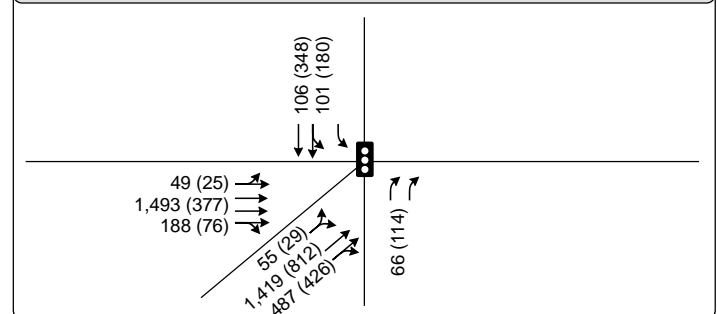
### 1. I Street / 3rd Street



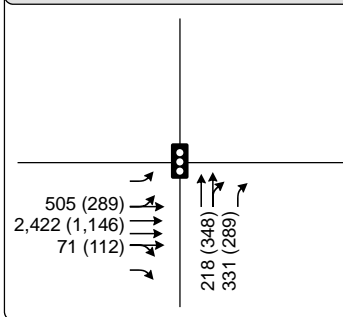
### 2. I Street / 5th Street



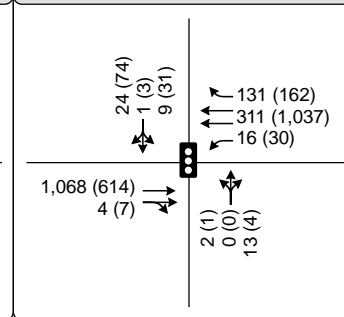
### 3. J Street / 3rd Street



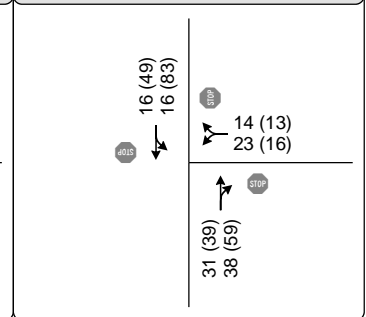
### 4. J Street / 5th Street



### 5. Capitol Mall / Neasham Circle



### 6. O Street / Front Street



## PEAK HOUR TRAFFIC VOLUMES AND LANE CONFIGURATIONS - EXISTING CONDITIONS

FIGURE 3

### 3. EXISTING PLUS PROJECT CONDITIONS

This chapter discusses the conditions of the transportation system under Existing Plus Project conditions.

#### PROJECT DESCRIPTION

As discussed in Chapter 1, the OSSHP General Plan includes numerous enhancements to existing components of the Park as well as proposed new facilities. However, many of the proposed components discussed previously will not result in quantifiable increases in motor vehicle trips to Old Sacramento (i.e., improved signage, visitor kiosks, enhanced bicycle/pedestrian circulation, additional pedestrian amenities, etc.). In fact, several of the components of the Plan could increase the attractiveness of traveling to/from and within Old Sacramento via bicycle or on foot. Specific components of the Preferred Alternative Plan likely to generate additional motor vehicle trips include the following:

- Development of the Gold Rush and Commerce Block, consisting of a total of 64,000 square feet of additional land uses, broken down as follows:
  - 38,000 square feet of retail
  - 38,000 square feet of office
- Railroad Technology Museum – a complementary facility to the existing Railroad History Museum, located within the Railyards Specific Plan area
- Expansion of Excursion Train Service – additional trains would run on the existing railroad line, providing new excursion service between Old Sacramento and the Sacramento Zoo, and between Pocket/Meadowview and Hood

#### TRIP GENERATION

This section documents the expected trip generation characteristics of the General Plan. Due to OSSHP's proximity to the Central Business District, peak demand on the transportation system surrounding both parks occurs during the weekday AM and PM peak commute periods. For this reason, the transportation analysis focuses upon these two time periods, as the susceptibility of the system to impacts during these periods is greater than during off-peak periods when the system has higher levels of available capacity. Although the number of trips associated with the proposed project will likely be higher on the weekend, the higher levels of

available transportation system capacity on weekends reduce the likelihood of impacts, associated with the proposed project during this time period. Therefore the trip generation estimates presented in this chapter are for the weekday AM and PM peak hours.

All passengers using the proposed excursion train service between Old Sacramento and the Sacramento Zoo would purchase tickets in OSSHP and would return to OSSHP. Therefore, new trips associated with this service would occur within the planning area. However, this service would be provided on weekends only, outside of the peak hours of the transportation system surrounding OSSHP. For this reason, the potential new trips associated with this expanded service are not reflected in the trip generation estimates presented below.

The methods used to calculate the trip generation potential of the Gold Rush and Commerce Block and Railroad Technology Museum differ. The trip generation potential of the proposed additional land uses within Old Sacramento, located on the Gold Rush and Commerce Block, are calculated using standard retail and office trip rates published in *Trip Generation* (Institute of Transportation Engineers, 2008). Once these rates were applied, the number of trips was adjusted downward by 8 percent to account for visitors arriving via an alternative transportation mode (including walking, bicycling, and transit). This reduction is equal to the total regional walk/bike and transit mode splits reported in the *2000 Sacramento Area Household Travel Survey* conducted by the Sacramento Area Council of Governments (SACOG). The survey revealed the following transit and walk/bike mode splits for the Sacramento region:

<b>Trip Type</b>	<b>Walk/Bike Mode Split</b>	<b>Transit Mode Split</b>
Work Trips	5.9%	3.4%
Non-Work Trips	6.8%	0.8%
All Trips	6.7%	1.3%

Given the location of OSSHP adjacent to the Central Business District, the grid of walkable streets within and adjacent to the study area, the area's pedestrian and bicycle infrastructure, and the number and quality of nearby transit services, a bike/walk/transit share of 8 percent is considered appropriate. Table 5 presents the trip generation estimate for the proposed additional land uses on the Gold Rush and Commerce Block.

**Table 5**  
**Trip Generation – 1849 Scene**

Land Use	Quantity	ITE Land Use Code	Trip Rate <sup>1</sup>			Trips						
			Daily	AM Peak Hour	PM Peak Hour	Daily	AM Peak Hour			PM Peak Hour		
							In	Out	Tot	In	Out	Tot
Retail	38 ksf <sup>2</sup>	820	42.95	1.00	3.74	1,632	23	15	38	69	72	142
Office	38 ksf <sup>2</sup>	70	11.00	1.55	1.50	418	52	7	59	10	47	57
Adjustments – External Trips Made by Bike/Walk/Transit <sup>2</sup>						-164	-6	-2	-8	-6	-10	-16
Net External Project Trips Made by Vehicle						<b>1,886</b>	<b>69</b>	<b>20</b>	<b>89</b>	<b>73</b>	<b>109</b>	<b>183</b>
Notes: <sup>1</sup> Trip rates from <i>Trip Generation</i> (ITE, 2008). <sup>2</sup> Refer to previous pages for assumptions regarding transit, and walk/bike trips <sup>3</sup> Thousand square feet Source: Fehr & Peers, 2011												

The *Feasibility Analysis for the Railroad Technology Museum* (Economics Research Associates, June 2008) documents the potential visitation of the Railroad Technology Museum. This study estimates that the facility will have between 220,000 and 419,000 annual visitors. The trip generation estimates contained in Table 7 are calculated using the high end of this estimated visitation range, which is displayed in Table 6.

**Table 6**  
**Peak Attendance Analysis – Railroad Technology Museum**

	Mid-Scenario	High-Scenario
Estimated Annual Attendance	320,000	419,000
Peak Month Attendance (@ 12% of total)	38,400	50,280
Weekly Attendance in Peak Month (@ 22.5% of peak month)	8,640	11,313
Design Day Attendance (@ 22% of week)	1,901	2,489
Peak In-Museum Attendance (40% of design day)	760	996
Source: ERA, 2008.		

Since the operating hours of the Railroad Technology Museum are anticipated to be similar to the existing Railroad History Museum (10:00 AM to 5:00 PM), the facility will not generate a significant number of trips during the AM peak hour of the transportation system.<sup>5</sup> According to California State Parks, 30 percent of visitors on weekdays will arrive on private buses (consisting primarily of school groups), similar to the existing Railroad History Museum. Table 7 presents the PM peak hour trip generation estimate for the Railroad Technology Museum.

<b>Table 7</b> <b>Weekday PM Peak Hour Trip Generation – Railroad Technology Museum</b>			
Peak Daily Attendance (visitors)	2,489		
Travel by Automobile (%)	62%		
Travel by Private Bus (%)	30%		
Alternative Mode (Walk, Bike, Transit) (%)	8%		
Average Persons per Automobile	2.5		
Average Persons per Private Bus	30		
Daily One-Way Automobile Trips	617		
Daily One-Way Private Bus Trips	25		
Total Daily Motor Vehicle Trips	1,284		
<b>PM Peak Hour Trips</b>	<b>Inbound (1% of Daily)</b>	<b>Outbound (20% of Daily)</b>	<b>Total</b>
Automobile Trips	6	123	129
Private Bus Trips	0	5	5
<b>Total PM Peak Hour Motor Vehicle Trips</b>	<b>6</b>	<b>128</b>	<b>134</b>
Source: Fehr & Peers, 2011.			

Trip generation estimates for the Railroad Technology Museum presented in Table 7 are based on forecasted peak day attendance during a peak month using the high-scenario visitation estimate, and thus are considered conservative. Additionally, many of the visitors to the Railroad Technology Museum will likely not produce “new trips,” and will instead include

<sup>5</sup> Traffic counts conducted at the study intersections indicate that the AM peak hour generally occurs between 8:00 AM and 9:00 AM within the study area.

visitors that would otherwise already be within Old Sacramento visiting other attractions, particularly the existing Railroad History Museum. Therefore, Table 8 adjusts the total trips generated by the combined trip generating components of the Plan to account for linked trips between uses, and presents an estimate of the total number of new vehicle trips associated with the proposed project. Note that in addition to the PM peak hour trips estimated in Table 7, Table 8 also includes a nominal quantity of trips associated with the Railroad Technology Museum during the AM peak hour to account for expected employee/delivery/maintenance trips during this time period.

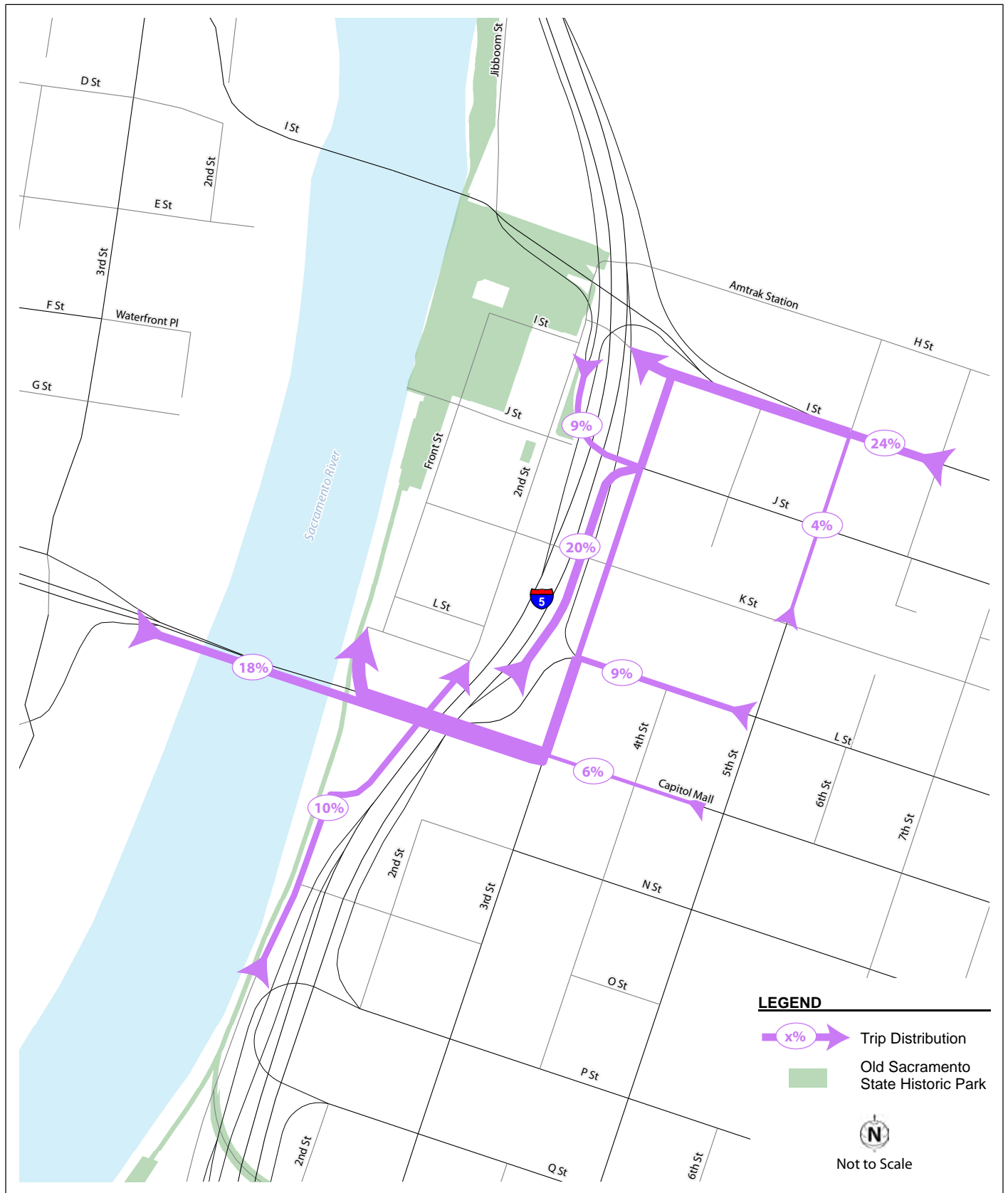
<b>Table 8</b> <b>Trip Generation – Total</b>							
Land Use	Trips						
	Daily	AM Peak Hour			PM Peak Hour		
		In	Out	Tot	In	Out	Tot
1849 Scene	1,886	69	20	89	73	109	182
Railroad Technology Museum	1,284	8	1	9	6	128	134
Adjustments - Linked trips within Old Sacramento (30%)	-951	-23	-6	-29	-24	-71	-95
<b>Net New Project Trips Made by Vehicle</b>	<b>2,219</b>	<b>54</b>	<b>15</b>	<b>69</b>	<b>55</b>	<b>166</b>	<b>221</b>
Source: Fehr & Peers, 2011							

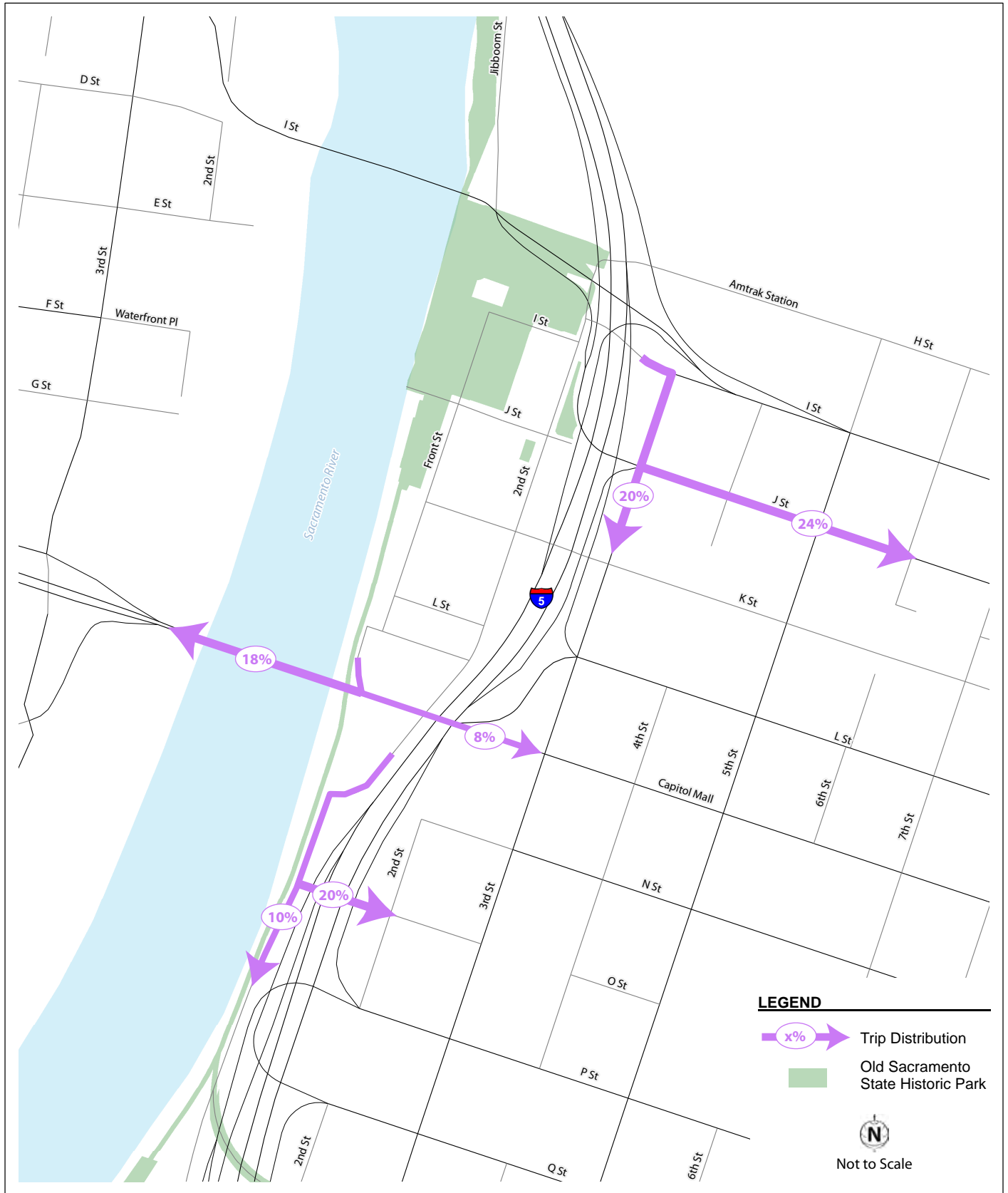
## TRIP DISTRIBUTION

The distribution of project trips was estimated using the following sources and analytical techniques:

- Traffic assignment using the SACMET Travel Demand Model
- Review of existing travel patterns within the study area using traffic counts collected in September 2010
- Relative travel time/speed comparisons between the project and key travel corridors for various routes

Due to the number of one-way streets within the study area and the location of freeway on-and off-ramps, it was necessary to develop separate trip distribution estimates for inbound and outbound trips. Figures 4 and 5 display the expected distribution of inbound and outbound project trips to Old Sacramento, respectively, estimated using the above sources and techniques. Project trips were assigned to the study intersections in accordance with the trip generation and distribution methodologies discussed in this chapter.



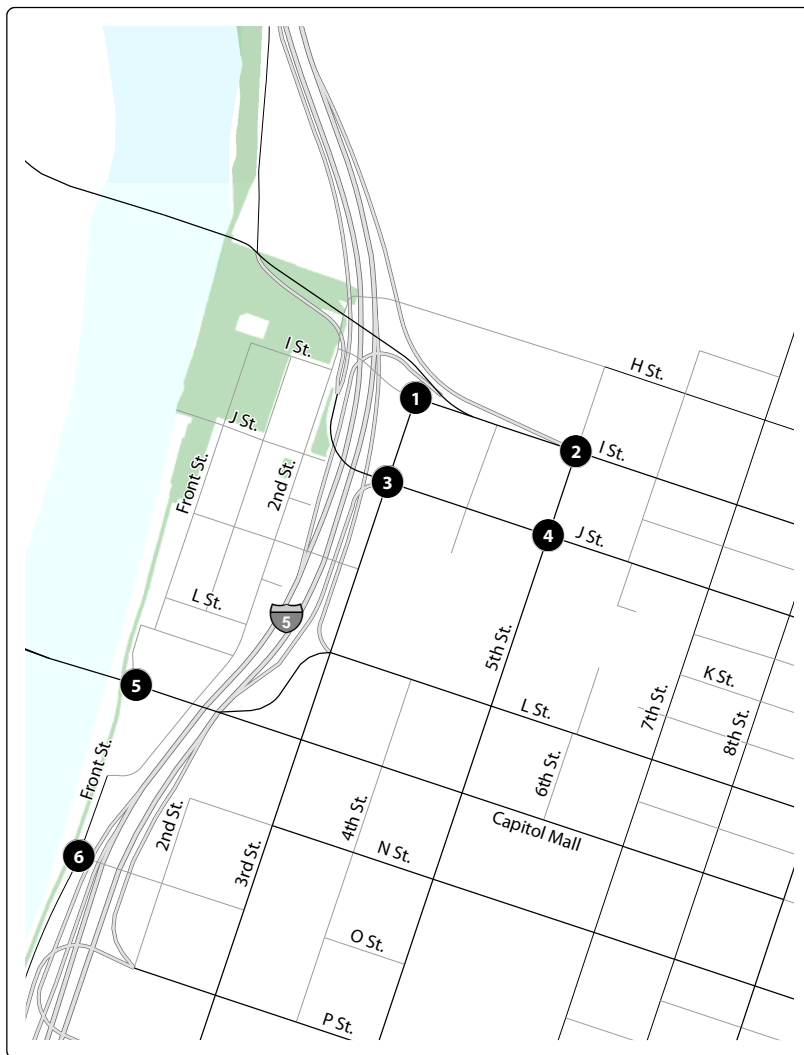


## INTERSECTION OPERATIONS

The Existing Plus Project scenario assumes full build-out of the Plan and layers the additional trips generated by OSSHP on top of existing 2010 trip levels using the previously discussed trip distribution estimates. This results in a combined 15 percent increase in traffic entering/exiting Old Sacramento at the gateway intersections during the AM peak hour, and a 27 percent increase in traffic entering/exiting Old Sacramento during the PM peak hour. Figure 6 displays the Existing Plus Project traffic volumes.

As shown in Table 9 below, with the addition of the traffic associated with the proposed project, all study intersections would continue to operate at LOS E or better and would experience no degradation in level of service from existing conditions (refer to separate Appendix B for detailed calculations). Therefore, all project specific impacts to the study intersections are considered less than significant.

<b>Table 9</b> <b>Intersection Level of Service – Existing Plus Project Conditions</b>				
Intersection	Control	Peak Hour	Delay <sup>1</sup>	LOS
1. I Street/3rd Street	All-Way Stop	AM PM	8 9	A A
2. I Street/5th Street	Traffic Signal	AM PM	14 16	B B
3. J Street/3rd Street	Traffic Signal	AM PM	59 37	E D
4. J Street/5th Street	Traffic Signal	AM PM	16 15	B B
5. Capitol Mall/Neasham Circle	Traffic Signal	AM PM	5 6	A A
6. O Street/Front Street	All-Way Stop	AM PM	7 8	A A
Notes: Average intersection delay is reported in seconds per vehicle for all approaches. Source: Fehr & Peers, 2011.				



## LEGEND

→ Turn Lane

AM (PM) Peak Hour Traffic Volume

1 Study Intersection

Traffic Signal

Stop Sign

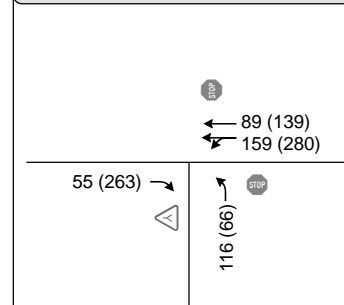
Yield Sign

Old Sacramento State Historic Park

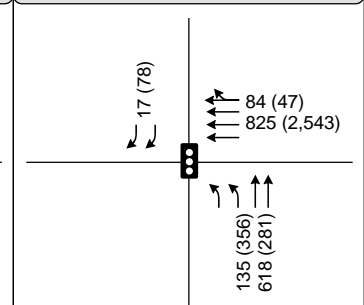


Not to Scale

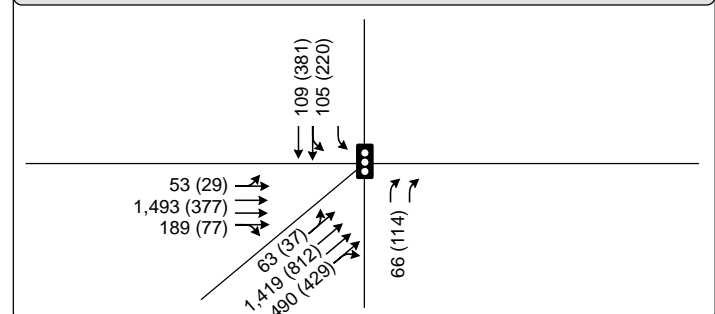
### 1. I Street / 3rd Street



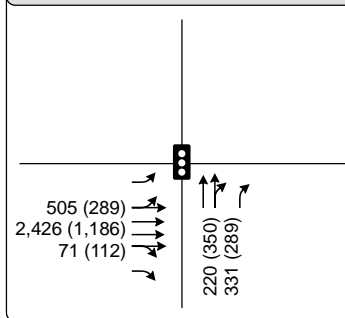
### 2. I Street / 5th Street



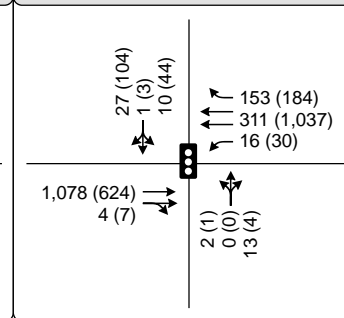
### 3. J Street / 3rd Street



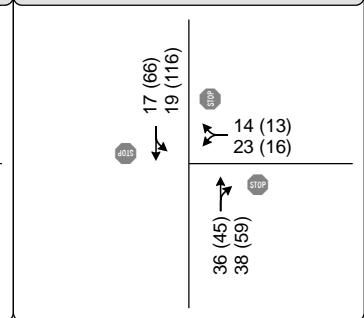
### 4. J Street / 5th Street



### 5. Capitol Mall / Neasham Circle



### 6. O Street / Front Street



PEAK HOUR TRAFFIC VOLUMES  
AND LANE CONFIGURATIONS -  
EXISTING PLUS PROJECT CONDITIONS

FIGURE 6

As shown in Table 10, the addition of proposed project trips would not result in freeway off-ramp vehicle queues exceeding the available storage at the two I-5 off-ramps to J Street. Implementation of the project would result in the following increases to freeway off-ramp volumes:

- I-5 Northbound off-ramp to J Street – volume on the ramp would increase by 11 vehicles during the AM peak hour (0.6 percent increase) and 11 vehicles during the PM peak hour (0.9 percent increase)
- I-5 Southbound off-ramp to J Street – volume on the ramp would increase by 5 vehicles during the AM peak hour (0.3 percent increase) and 5 vehicles during the PM peak hour (1.0 percent increase)

<b>Table 10</b> <b>Off-Ramp Queuing – Existing Plus Project Conditions</b>				
<b>Off-Ramp</b>	<b>Storage Length</b>	<b>Peak Hour</b>	<b>Existing Queue</b>	<b>Existing Plus Project Queue</b>
1. I-5 Northbound – Off-ramp to J Street	1,025 feet	AM PM	975 feet 875 feet	980 feet 885 feet
2. I-5 Southbound – Off-ramp to J Street	1,475 feet	AM PM	550 feet 250 feet	550 feet 255 feet
Source: Fehr & Peers, 2011.				

## 4. CUMULATIVE CONDITIONS

This chapter discusses the cumulative conditions of the transportation system with and without implementation of the General Plan. The cumulative conditions analysis considers all future planned developments and transportation improvements within the vicinity of the Old Sacramento.

### TRAFFIC FORECASTS

The SACMET regional travel demand model (TDM) developed by SACOG was used to forecast cumulative (year 2035) traffic volumes. The cumulative version of this model reflects planned land use growth both within the City of Sacramento as well as within the surrounding region. The model also incorporates planned improvements to the surrounding transportation system.

It should be noted that under cumulative conditions the Railyards redevelopment project is assumed in place including the planned roadway infrastructure associated with this project. The Railyards roadway network includes extensions of 5<sup>th</sup> Street and 6<sup>th</sup> Street northward over the Union Pacific Railroad tracks which results in a shifting of traffic patterns within the study area.

In addition to the Railyards, several other large-scale development projects are planned in the vicinity of OSSHP on either side of the Sacramento River. Figure 7 highlights several of these planned development/redevelopments that have been included in the modeling of cumulative conditions.

Brief descriptions of key land development and transportation projects included in the forecasts, along with potential implications upon Old Sacramento and Central Shops Historic District (Central Shops), are provided below:

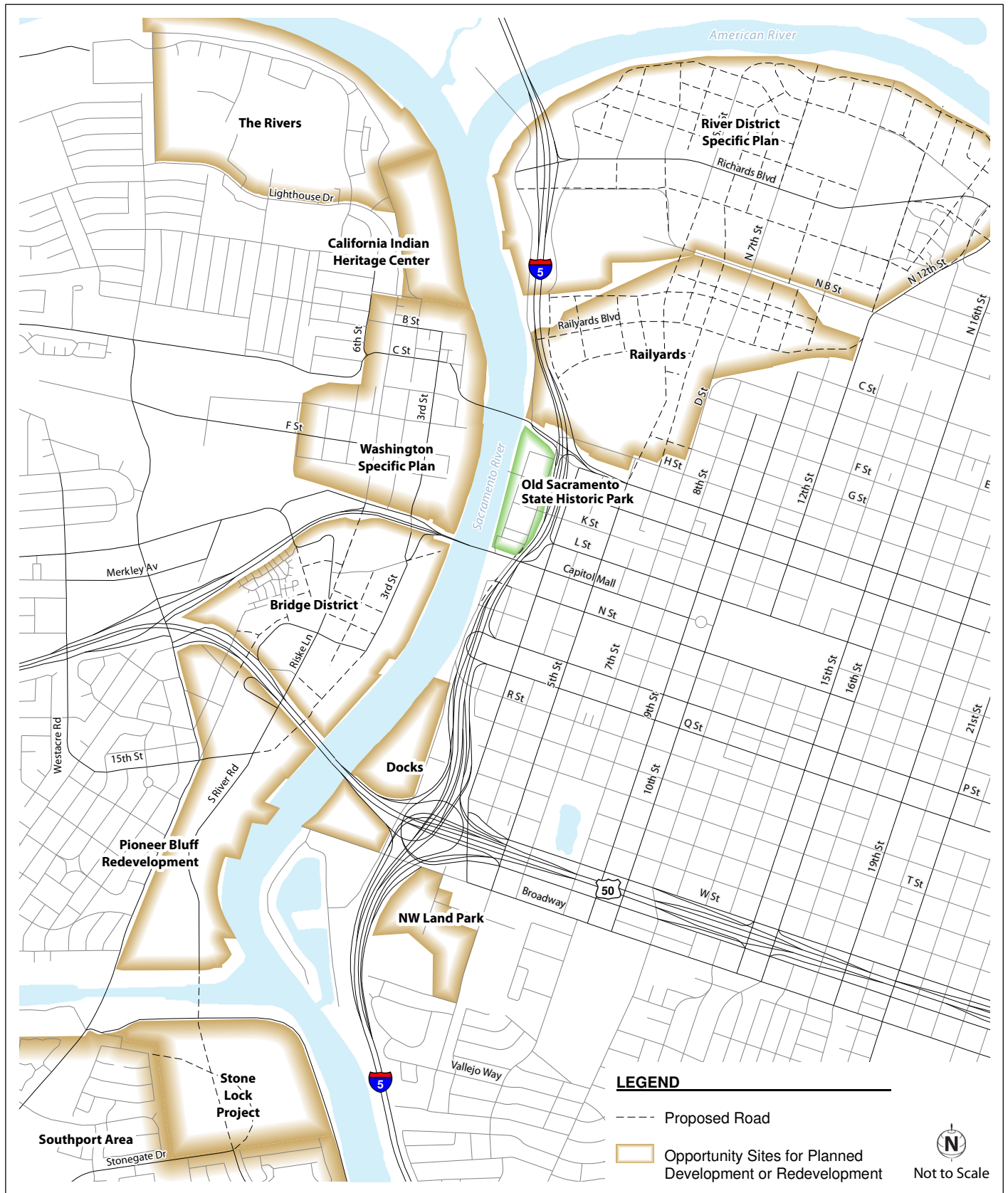
- **Bridge District Specific Plan:** This specific plan envisions a large mixed-use development on the West Sacramento side of the Sacramento River. The project area is bordered by Tower Bridge Gateway to the north, the Sacramento River to the east, and US-50 to the southwest. This plan includes a wide range of commercial uses, as well as medium- to high-density residential development. The district will be developed on a gridded street system, and will include the development of parks as well as an expansion of West Sacramento's riverfront promenade.

- Implications: New commercial and residential development on the west side of the Sacramento River would increase activity along the riverfront, and would increase the attractiveness of Old Sacramento as a destination. This project would also increase the amount of traffic across the Tower Bridge, and along the southern border of Old Sacramento.
- **Railyards Specific Plan:** This 244-acre redevelopment site is located immediately north of Old Sacramento, and is envisioned as an expansion of Sacramento's downtown. The plan calls for a transit-oriented mixed-use district surrounding RT's planned light rail extension across the American River. The plan includes new connections between the project and Downtown, and encompasses the site of the planned Sacramento Intermodal Transportation Facility.
  - Implications: This plan would transform the northern boundary of OSSHP, and result in a shift of more visitors arriving from the north than under existing conditions. Redevelopment of the area surrounding the railroad depot would present opportunities to better link Old Sacramento to the City's transit hub.
- **Sacramento Streetcar:** The cities of Sacramento and West Sacramento initiated a planning process in 2006 to assess the feasibility of connecting the two cities with a streetcar across the Tower Bridge. The West Sacramento Civic Center is proposed as the western terminus of the line, and the Sacramento Convention Center is proposed as the eastern terminus. The feasibility study also identified several other possible alignments. The City of Sacramento is currently in the midst of a citywide effort to evaluate streetcar alignments and determine how to prioritize their implementation.
  - Implications: If the proposed streetcar across the Tower Bridge is implemented, it would travel along the southern border of Old Sacramento. The streetcar would increase the percentage of visitors to Old Sacramento arriving on transit by providing a direct link to the existing RT light rail transit line, as well as connections to several attractions including Raley Field, the riverfront, the California State Capitol, and the Sacramento Convention Center. A potential future streetcar connection between Capitol Mall and the Amtrak Station/Railyards to the north would further increase the attractiveness of travel to/from Old Sacramento via transit by providing streetcar service on 3<sup>rd</sup> Street, one block east of OSSHP and nearby the RTM.

The following two projects would have implications upon the transportation system surrounding Old Sacramento. However, funding sources for these projects are uncertain at this time, and neither project was assumed in place for the purposes of developing traffic forecasts for the City's General Plan. Therefore, the analysis conservatively assumes that neither project is in place under cumulative conditions:

- **Downtown to Waterfront Reconnection Project:** This project would realign Front Street between O Street and L Street, construct a new overcrossing of I-5 at N Street, and construct an at-grade intersection at Capitol Mall/Front Street. Additionally, Capitol Mall would be reconfigured to include Class II on-street bicycle lanes alongside two travel lanes in each direction between Neasham Circle and 3rd Street.
  - Implications: By improving access to Front Street and creating a new at-grade intersection at Capitol Mall, this project would improve accessibility to Old Sacramento at its southeastern corner. This improved access would relieve traffic at the existing Capitol Mall/Neasham Circle intersection by providing an additional gateway off of Capitol Mall. Construction of bicycle lanes on Capitol Mall would also make accessing Old Sacramento from the south safer and more convenient for bicyclists.
- **Sacramento River Crossing Alternatives Study:** This recently approved study explores new crossings of the Sacramento River, as well as modifications to existing crossings, in an effort to improve connectivity between Sacramento and West Sacramento. Future crossings may serve a mix of motor vehicles, transit, bicycles, and pedestrians, or could be identified as bicycle/pedestrian only connections. The study, adopted by both City Councils, recommends the development of two new crossings including one in the "north market" area north of Tower Bridge and one in the "south market" area.
- Implications: Modifications to the I Street Bridge or a new adjacent bridge to the north could potentially improve pedestrian and bicycle access to OSSHP. Additionally, of the six identified opportunities for new crossing locations, four are within one mile of Old Sacramento and the Central Shops. Improved connectivity across the Sacramento River would likely increase the level of activity along the riverfront, and would therefore increase the attractiveness of Old Sacramento as a destination.

Figure 8 displays the Cumulative No Project lane configurations and traffic volumes at each of the study intersections.



## CUMULATIVE NO PROJECT INTERSECTION OPERATIONS

Table 11 summarizes traffic operations at the study intersections under Cumulative No Project conditions (refer to separate Appendix C for detailed calculations). As shown in Table 11, the J Street/3<sup>rd</sup> Street intersection is expected to operate at LOS F in the future during the AM peak hour without the implementation of the proposed project. Per the City of Sacramento's LOS standards, LOS F is an acceptable level of service at this location since it is within the core area defined in the City's General Plan and is therefore exempt from level of service standards. All other study intersections are expected to continue to operate at LOS D or better under cumulative conditions during both peak hours.

<b>Table 11</b> <b>Intersection Level of Service – Cumulative No Project Conditions</b>				
<b>Intersection</b>	<b>Control</b>	<b>Peak Hour</b>	<b>Delay<sup>1</sup></b>	<b>LOS</b>
1. I Street/3rd Street	All-Way Stop	AM PM	20 16	C C
2. I Street/5th Street	Traffic Signal	AM PM	18 34	B C
3. J Street/3rd Street	Traffic Signal	AM PM	90 39	F D
4. J Street/5th Street	Traffic Signal	AM PM	20 17	B B
5. Capitol Mall/Neasham Circle	Traffic Signal	AM PM	6 6	A A
6. O Street/Front Street	All-Way Stop	AM PM	14 26	B D
Notes: Average intersection delay is reported in seconds per vehicle for all approaches. Source: Fehr & Peers, 2011.				

Table 12 compares estimated queue lengths under Cumulative No Project conditions to the available amount of storage. As shown in Table 4, all study freeway off-ramps remain within their storage areas during the AM and PM peak hours.

**Table 12**  
**Off-Ramp Queuing – Cumulative No Project Conditions**

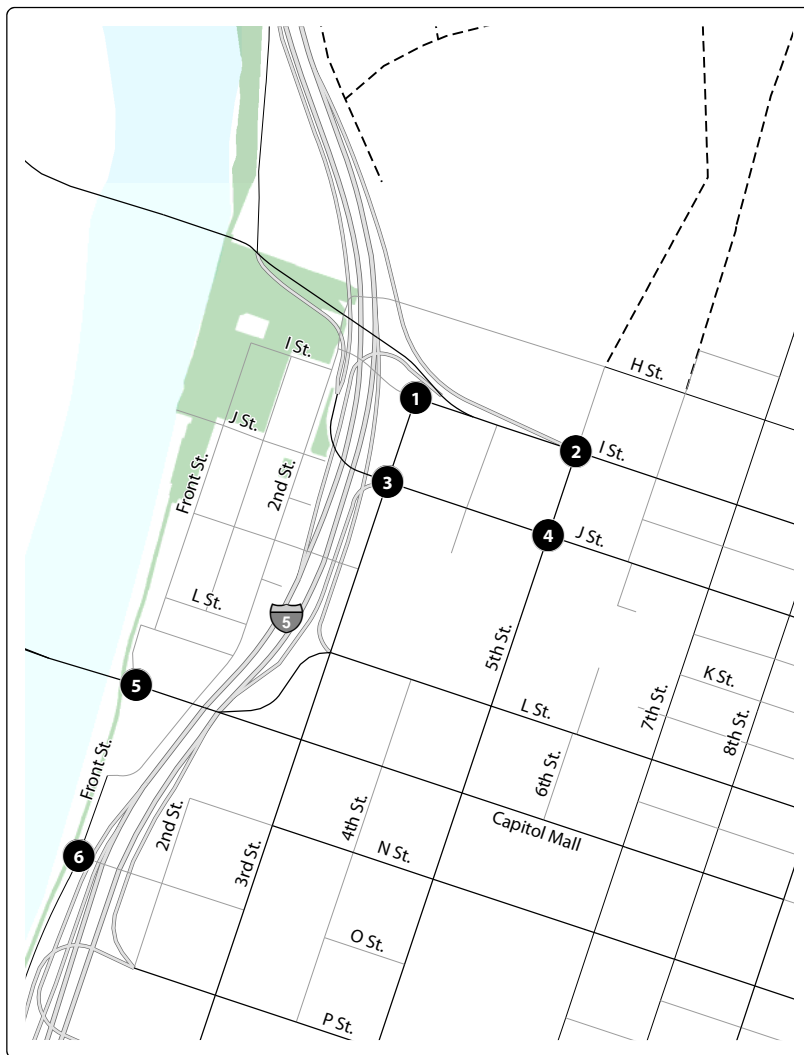
Off-Ramp	Storage Length	Peak Hour	Queue
1. I-5 Northbound – Off-ramp to J Street	1,025 feet	AM PM	985 feet 885 feet
2. I-5 Southbound – Off-ramp to J Street	1,475 feet	AM PM	615 feet 400 feet
Source: Fehr & Peers, 2011.			

### CUMULATIVE PLUS PROJECT INTERSECTION OPERATIONS

Figure 9 displays the Cumulative Plus Project traffic volumes, and Table 13 summarizes traffic operations at each of study intersections (refer to separate Appendix C for detailed calculations). As shown in Table 13, the addition of traffic associated with the proposed project does not alter the level of service at any study location from Cumulative No Project conditions.

**Table 13**  
**Intersection Level of Service – Cumulative Plus Project Conditions**

Intersection	Control	Peak Hour	Delay <sup>1</sup>	LOS
1. I Street/3rd Street	All-Way Stop	AM PM	20 16	C C
2. I Street/5th Street	Traffic Signal	AM PM	18 35	B C
3. J Street/3rd Street	Traffic Signal	AM PM	92 40	F D
4. J Street/5th Street	Traffic Signal	AM PM	20 17	B B
5. Capitol Mall/Neasham Circle	Traffic Signal	AM PM	6 8	A A
6. O Street/Front Street	All-Way Stop	AM PM	14 30	B D
Notes: Average intersection delay is reported in seconds per vehicle for all approaches. Source: Fehr & Peers, 2011.				



## LEGEND

Turn Lane

AM (PM) Peak Hour Traffic Volume

1 Study Intersection

Traffic Signal

Stop Sign

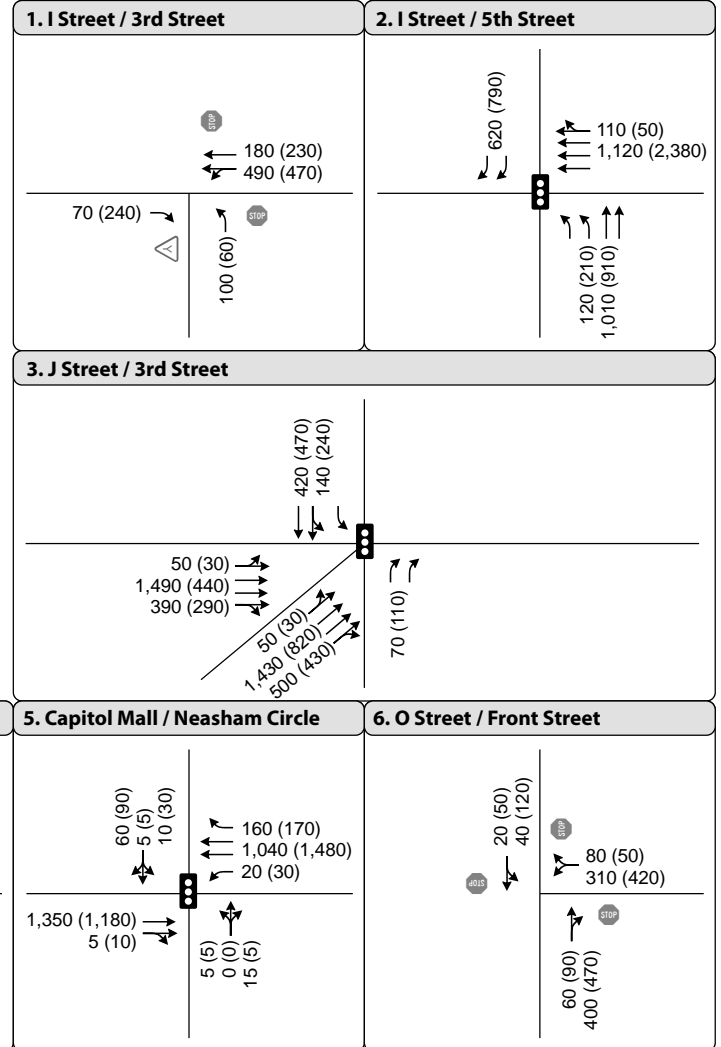
Yield Sign

Planned Streets

Old Sacramento State Historic Park



Not to Scale



**PEAK HOUR TRAFFIC VOLUMES  
AND LANE CONFIGURATIONS -  
CUMULATIVE NO PROJECT CONDITIONS**

FIGURE 8

Although the J Street/3<sup>rd</sup> Street intersection operates at LOS F under Cumulative Plus Project conditions, the addition of project traffic does not increase overall intersection delay by five or more seconds from Cumulative No Project conditions. Therefore, according to the City of Sacramento's significance criteria, the two second increase in the level of delay at this location does not constitute a project impact. All cumulative impacts to the study intersections are considered less than significant.

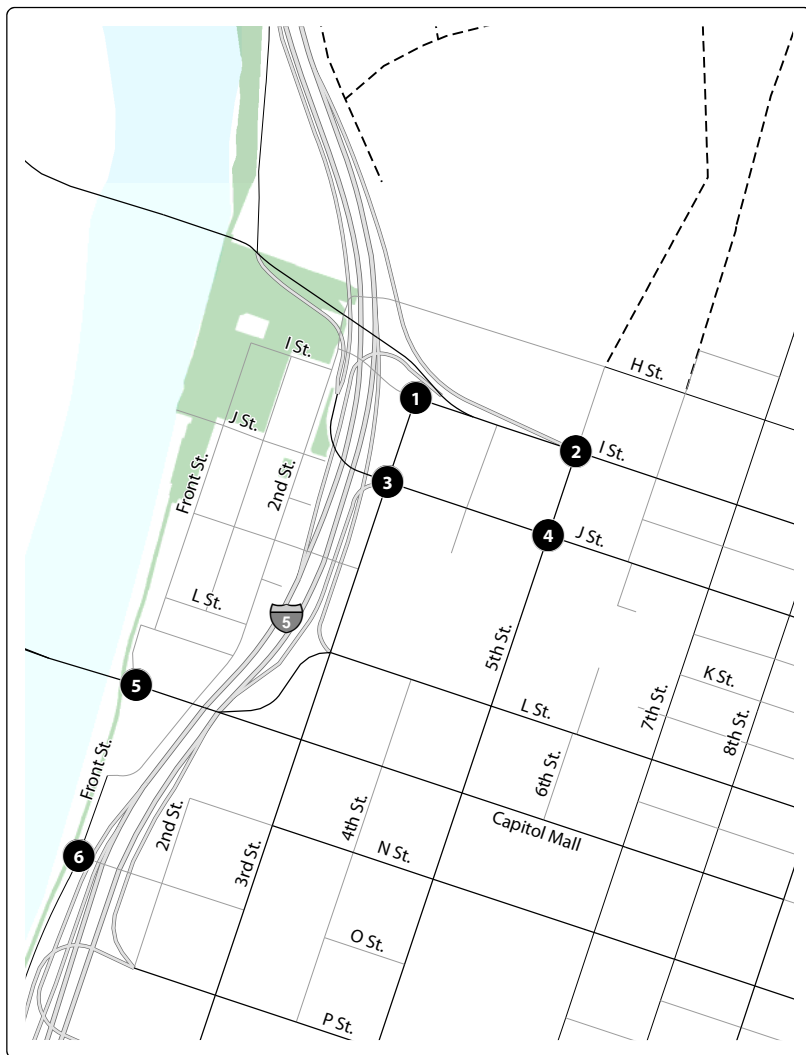
As shown in Table 14, the addition of proposed project trips under Cumulative Plus Project conditions would not result in freeway off-ramp vehicle queues exceeding the available storage at the two I-5 off-ramps to J Street. Implementation of the project would result in the following increases to freeway off-ramp volumes from Cumulative No Project conditions:

- I-5 Northbound off-ramp to J Street – volume on the ramp would increase by 11 vehicles during the AM peak hour (0.6 percent increase) and 11 vehicles during the PM peak hour (0.9 percent increase)
- I-5 Southbound off-ramp to J Street – volume on the ramp would increase by 5 vehicles during the AM peak hour (0.3 percent increase) and 5 vehicles during the PM peak hour (0.7 percent increase)

<b>Table 14</b> <b>Off-Ramp Queuing – Cumulative Plus Project Conditions</b>				
<b>Off-Ramp</b>	<b>Storage Length</b>	<b>Peak Hour</b>	<b>Cumulative No Project Queue</b>	<b>Cumulative Plus Project Queue</b>
1. I-5 Northbound – Off-ramp to J Street	1,025 feet	AM PM	985 feet 885 feet	990 feet 890 feet
2. I-5 Southbound – Off-ramp to J Street	1,475 feet	AM PM	615 feet 400 feet	615 feet 400 feet
Source: Fehr & Peers, 2011.				

## TRANSIT FACILITIES

The Preferred Alternative Plan includes several components that would either directly or indirectly benefit land and water based transit access to/from and within OSSHP, including the following:



## LEGEND

→ Turn Lane

AM (PM) Peak Hour Traffic Volume

1 Study Intersection

Traffic Signal

Stop Sign

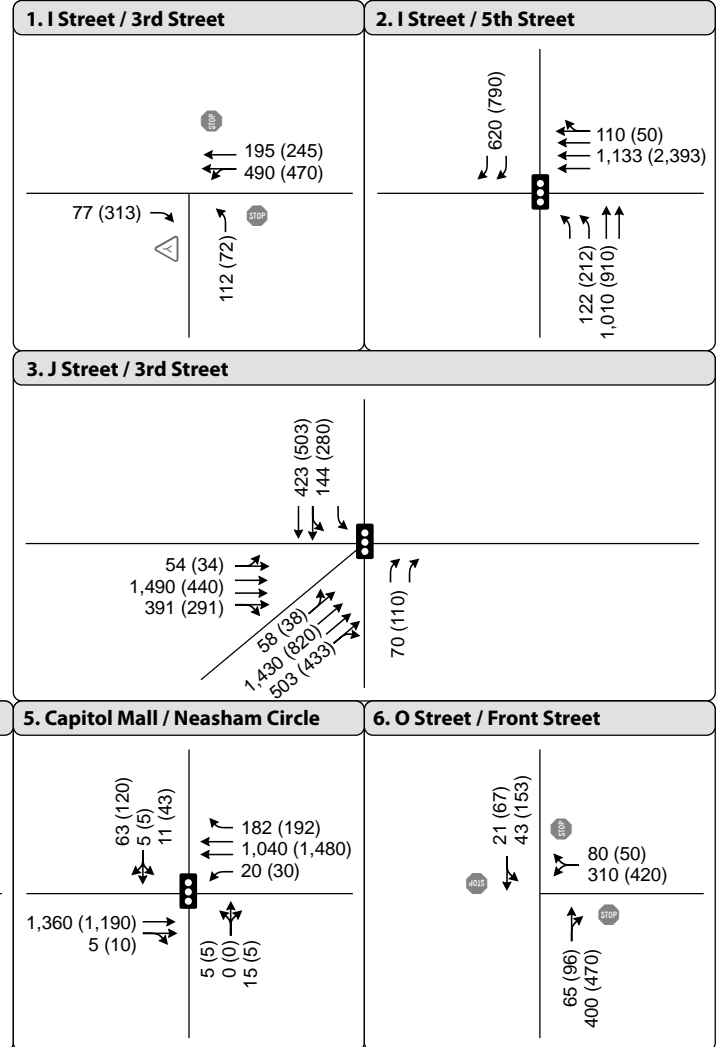
Yield Sign

Planned Streets

Old Sacramento State Historic Park



Not to Scale



**PEAK HOUR TRAFFIC VOLUMES  
AND LANE CONFIGURATIONS -  
CUMULATIVE PLUS PROJECT CONDITIONS**

**FIGURE 9**

### ***Improved Wayfinding:***

Several components of the Plan include improved wayfinding signage, including new signage along the riverfront, at gateways to Old Sacramento and the Central Shops, and along the Pony Express Trail. Wayfinding signage benefits visitors traveling by transit by allowing them to more easily reach their final destination from transit stop locations.

### ***New Dock:***

A proposed dock extending from J Street to just south of the I Street Bridge would allow for implementation of water taxi service between OSSHP and other nearby destinations, including the planned California Indian Heritage Center in West Sacramento. Although the new dock space is intended primarily for the use of water taxis and other public access vessels, as well as for the display of historic ships, identified space for private recreational vessels would also be provided.

### ***Expanded Excursion Train Operations:***

Existing excursion train operations from Old Sacramento consist of a 40 minute out-and-back scenic ride along the Sacramento River. All excursion trains currently run to a location called Baths, where the trains pause while the engine is coupled to the opposite end of the train for the return trip. Passengers are not permitted to disembark at this location. According to Sacramento Southern Railroad ridership data provided by California State Parks for fiscal year 2010-2011, the railroad carried 85,109 passengers. The Preferred Alternative Plan includes proposed expansions of excursion train operations on two separate segments of the Sacramento Southern Railroad, as described below:

- **Sacramento Zoo** – The Plan proposes to provide additional service on the existing excursion train line, with the additional service operating approximately 0.5 miles beyond the current terminus at the Baths to allow for a stop at the Sacramento Zoo. New stops adjacent to the Crocker Art museum and Miller Park are also proposed.
- **Meadowview to Hood** – The Plan proposes to run new excursion train service between the Pocket/Meadowview neighborhood in the City of Sacramento and Hood, a census-designated place located in unincorporated Sacramento County approximately 15 miles south of Old Sacramento on the Sacramento River.

The following data and methodologies were used to estimate the expected increase in Sacramento Southern Railroad ridership associated with the expanded excursion train service:

- According to data provided by the Sacramento Southern Railroad/California State Railroad Museum, a total of 1,068 train movements (534 roundtrip trains) occurred in 2010 associated with excursion train, school train, “Spookatmotive, and “Polar Express” operations.
- The Sacramento Southern Railroad carried 85,109 passengers in the most recent year for which data is available (fiscal year 2010-2011).
  - $85,109 / 534 = 159$  passengers per train
- According to California State Parks, the proposed service to the Zoo would result in an additional 4 trains per day on days when the current excursion service operates.
- Excursion trains operated on 53 calendar days in 2010.
- Service between Pocket/Meadowview and Hood will operate on days when current excursion trains operate, and will consist of up to three trains per day.

Using the above data, it is possible to calculate an estimate of the increase in trains and passengers associated with the two expansions of service proposed in the Plan:

- Sacramento Zoo Service:  $159 \text{ passengers} \times 4 \text{ daily trains} \times 53 \text{ days} = 33,708$  additional passengers (on 212 trains) annually
- Meadowview to Hood Service:  $159 \text{ passengers} \times 3 \text{ daily trains} \times 53 \text{ days} = 25,281$  additional passengers (on 159 trains) annually
- Projected Grand Total = 144,098 annual passengers<sup>6</sup>

Unlike existing excursion train service, future service expansions would allow passengers to board and disembark at separate locations. The expanded service to the Sacramento Zoo would allow visitors to both Old Sacramento and the Zoo to park once in Old Sacramento and travel by train to/from the Zoo as well as to the Crocker Art Museum and Miller Park. Allowing

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<sup>6</sup> This estimate is a conservative long-range figure unlikely to be achieved until several years after the implementation of all service expansions.

visitors to travel by train between these four destinations would reduce the growth in future automobile trips to these facilities.

Implementation of one or both of the proposed expansions in excursion train service would require California State Parks to work with appropriate regulatory agencies, including the California Public Utilities Commission, to determine appropriate crossing treatments and obtain all required approvals.

#### ***Horse-Drawn Streetcar Transit Service:***

The Plan proposes a new horse-drawn streetcar service through Old Sacramento via a loop route along 2<sup>nd</sup> Street, I Street, Front Street, and L Street. The horse car would operate on tracks embedded within the street in mixed vehicle traffic, except on the portions of Front Street and I Street where motor vehicle traffic is prohibited. This service would operate at low speeds similar to existing horse-drawn carriage service currently available within Old Sacramento. The proposed horse-drawn streetcar service would serve as a circulator, extending the range of pedestrian trips within the area, and stopping within one block of existing and proposed transit services on Capitol Mall and 3<sup>rd</sup> Street allowing for transfers.

Implementation of the horse-drawn streetcar service would require additional approvals from appropriate regulatory agencies, including the City of Sacramento.

#### ***Summary:***

No public transit routes currently operate within Old Sacramento. Implementation of the project would provide additional train service from OSSHP via the expanded excursion train line to the Sacramento Zoo, would provide a horse car service to assist in the circulation of visitors within Old Sacramento, and would allow for the implementation of water taxi service between OSSHP and other nearby destinations on the Sacramento River. Additionally, the project would improve wayfinding allowing transit riders to/from the area to more easily reach their destinations. Implementation of the proposed project would not adversely affect public transit operations. Therefore, project impacts to transit are considered less than significant.

#### **PEDESTRIAN AND BICYCLE FACILITIES**

The Preferred Alternative Plan includes several components that would either directly or indirectly benefit pedestrian and bicycle access to/from and within OSSHP, including the following:

### ***Improved Wayfinding:***

Several components of the Plan include improved wayfinding signage, including new signage along the riverfront, at gateways to Old Sacramento and the Central Shops, and along the Pony Express Trail to assist pedestrians and bicyclists in finding their destinations.

### ***Pedestrian/Bicyclist Amenities:***

Multiple components of the Plan include additional amenities for pedestrians and bicyclists including additional seating, shade trees, picnic tables, and drinking fountains.

### ***Riverfront Bicycle/Pedestrian Circulation Improvements:***

The Plan calls for improvements to the existing bicycle trail along the Sacramento River south to J Street, providing improved bicycle/pedestrian access. The current bicycle/pedestrian crossing of the Sacramento Southern Railroad tracks at I Street would be abandoned as a physical crossing, and bicyclists/pedestrians would be rerouted to J Street to improve safety. The existing crossing at I Street requires bicyclists to cross multiple train tracks spaced out over an area approximately 85 feet in length, and places cyclists on a one block long unpaved segment of I Street. Abandonment of this crossing is not considered an adverse impact to the existing bicycle facility.

New clearly marked pedestrian crossings over the existing excursion train tracks and boardwalk would improve safety for bicyclists and pedestrians while also assisting mobility-impaired visitors in reaching the waterfront.

### ***Summary:***

Implementation of the Plan would improve existing pedestrian and bicycle infrastructure and provide additional signage and amenities for bicyclists and pedestrians within OSSHP. The Plan would provide for adequate access by pedestrians and bicyclists, and would not adversely affect any existing or planned pedestrian or bicycle facilities. Therefore, project impacts to bicycle and pedestrian circulation are considered less than significant.

## **APPENDIX B**

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### **Proposed Bikeway Alternative Concepts**



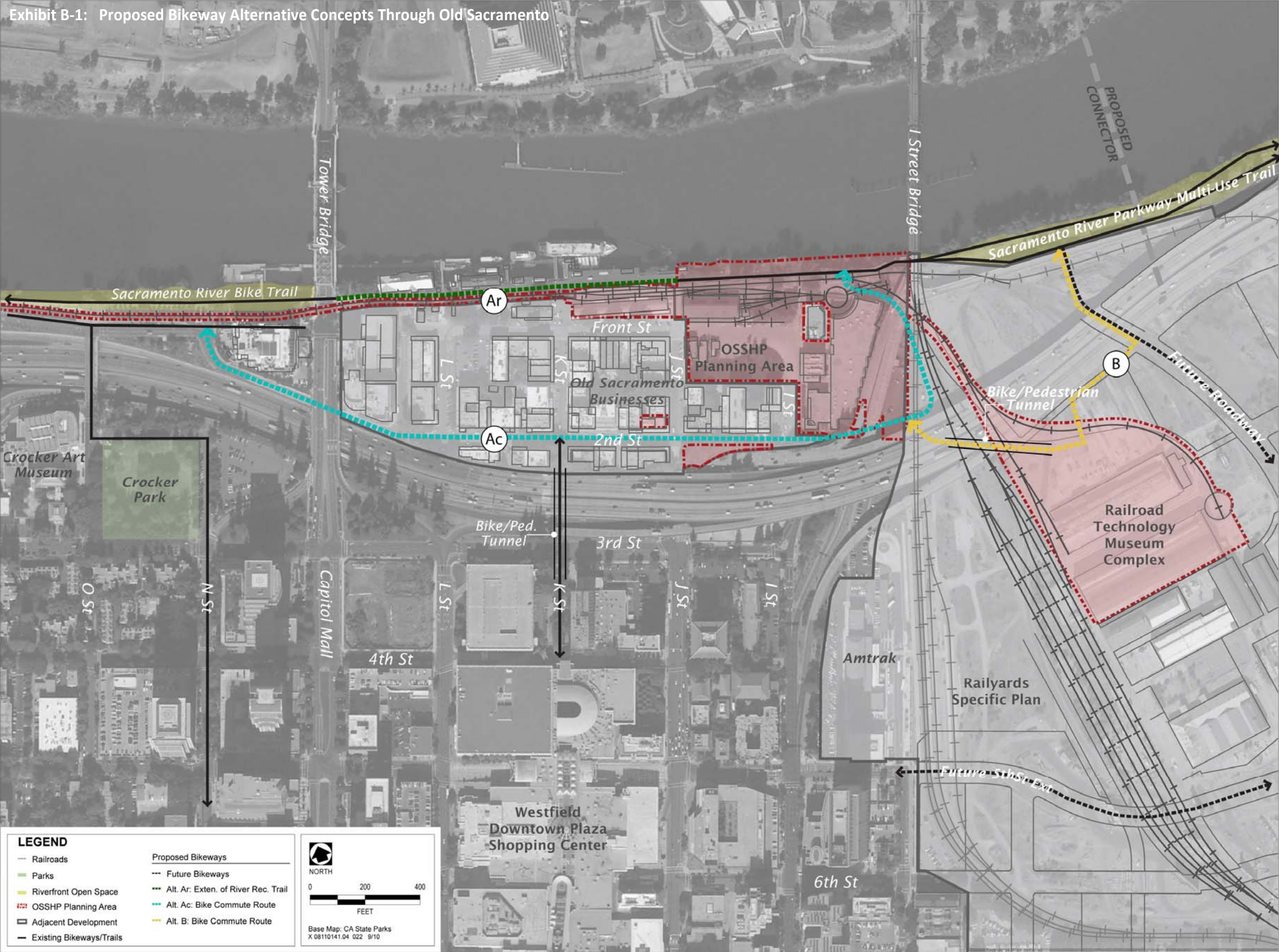
## B.1 BIKEWAY ALTERNATIVE CONCEPTS

The following bicycle/pedestrian access routes (shown in Exhibit B-1) are proposed through Old Sacramento to address issues of bicycle safety with existing bicycle routes and improve bicycle access connections through Old Sacramento. The proposed bike routes would improve access connections along the river and to surrounding destinations in Downtown Sacramento, linking to existing and planned bikeways in Downtown Sacramento. Three potential bikeway routes are presented in Exhibit B-1:

- Alternative A proposes two routes: (1) a river recreation route along the Sacramento River that continues and connects the existing segments of the Sacramento River Parkway Multi-Use Trail; this route extends the existing trail (along the west side of the excursion train line) from where it currently terminates near J Street to connect with the existing Sacramento River Parkway Multi-Use Trail south of Tower Bridge; (2) a commute route that also continues the existing Sacramento River Parkway Multi-Use Trail near the I Street Bridge, behind the Railroad History Museum to connect with 2<sup>nd</sup> Street; and then, continuing along 2<sup>nd</sup> Street-Neasham Circle to reconnect with the Sacramento River Parkway Multi-use Trail, next to Front Street, south of Tower Bridge.
- Alternative B provides a safe bike connection from the Railyards site and destinations north of the Capitol Corridor to Old Sacramento and Downtown destinations south of the Capitol Corridor. It proposes a connection from the Sacramento River Parkway Multi-Use Trail at a point north of the I Street Bridge on the Railyards site (to be coordinated with the development of future roadway and bicycle routes in the Railyards), travels east through the Railyards property and connects with the West tunnel that will provide bicycle and pedestrian access from the Railroad Technology Museum to Old Sacramento.

Proposed bike alignments, development of bike routes, and improvements to bikeway surfaces, shoulders, and signage in Old Sacramento and in the planning area will require coordination with the City of Sacramento and other relevant jurisdictions.

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## **APPENDIX C**

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### **Public Workshops Summary and Initial Site Concepts**



## C.1 INTRODUCTION

A series of three public workshops were held to support the General Plan development. A brief summary of the public workshops, graphics, and early alternatives developed as part of the General Plan process, are provided in this section. The alternatives presented in this section and public input received in the public outreach process is the basis and precursor, leading to the development of the Preferred Concept Plan presented in Chapter 4. The results and all materials presented to the public during the public workshops are available and accessible from the General Plan project website: [www.parks.ca.gov/osshp/genplan](http://www.parks.ca.gov/osshp/genplan).

## C.2 PUBLIC WORKSHOP #1: IDENTIFICATION OF ISSUES AND OPPORTUNITIES

The first public workshop introduced the public to the planning process for the General Plan and EIR and was used to gather public input on the issues, concern, ideas, and visions to improve the future use and management of Old Sacramento State Historic Park (OSSHP). A brief presentation was provided to give an overview of the project and then followed up with questions for the public and table discussions addressing the issues, opportunities, and desired future for OSSHP. The key themes arising from the public workshop and table discussions are summarized below (refer to the notes for Public Workshop #1 on the project website for a summary of the comments received from the workshop).

### **Vision and Proposed Uses:**

- ▶ As a Living History Site
- ▶ Connect to the River and Interpret the Riverfront
- ▶ Extend the Rail Line but Use Clean Energy
- ▶ Uncover the Past
- ▶ Places for Events
- ▶ Connect to Museums and other Cultural Destinations
- ▶ As a Gateway to California
- ▶ Alternative Transportation Options

### **Issues:**

- ▶ Freeway Constraint
- ▶ Traffic and Parking Conflicts
- ▶ Lack of Attractions and Activities
- ▶ Lack of Interpretation
- ▶ Authenticity of Structures

- ▶ Balancing Different Ownership Interest
- ▶ Visitor-Friendly Public Facilities

**Favorite Experiences:**

- ▶ CSRM and Excursion Train Rides
- ▶ Historic Architecture/Character
- ▶ Special Events
- ▶ River Cruises
- ▶ Bike Trail

**Important Historical Themes:**

- ▶ **Railroad** – as the site of the transcontinental railroad
- ▶ **Gold Rush** – the event that brought people here
- ▶ **Commerce** – the connecting activity from which the city grew from
- ▶ **Agriculture** – the fertile region of the Sacramento Valley as a source of living for early settlers and significance to the economy of the valley
- ▶ **River and River Access** – as an important early means of transportation and shipping for early settlers and miners
- ▶ **As a Diverse, Cosmopolitan Community** – attracting an ethnically and culturally diverse community from the onset of the city’s early development
- ▶ **Archaeology** –historic remains of the city can still provide a glimpse into the past
- ▶ **Pony Express** – historic site of the western terminal delivering express mail service from the east coast
- ▶ **As a Transportation Nexus** – the site of dramatic revolutions in transportation technology (stage coaches, steamboats, railroads, etc.) that transformed the Sacramento region
- ▶ **Skid Row/Redevelopment** – as part of the history/story of Old Sacramento’s transformation

## C.2 PUBLIC WORKSHOP #2: PRESENTATION OF INITIAL CONCEPT PLANS

The second public workshop presented and gathered public input on three possible alternatives for the future use and management of OSSHP. The alternatives carry out various interpretive themes of the park to their full, logical development. These alternatives, however, did not represent final “alternatives,” but were rather a starting point to understand public preferences and choose to choose the preferred plan components, envisioned for the future development of OSSHP. The three alternatives presented and their accompanying descriptions are shown in Exhibits C-1 through C-3 and Tables C-1 through C-3, below.

## Exhibit C-1: Site Concept 1 – Gold Rush History

## EXPAND, INTERPRET, AND BRING ALIVE GOLD RUSH HISTORY

Interprets buildings and activities in Old Sacramento in the years 1848-1852

\* California State Railroad History and Technology Museums become a separate classified unit



## EXCURSION TRAIN LINE &amp; STOPS



**TRAIN TO THE ZOO**  
WITH STOPS AT THE CROCKER ART MUSEUM, MILLER PARK, AND BATHS

**LEGEND**

- OPERATING LINE
- OTHER TRAIN TRACK STUDY CORRIDOR
- TRAIN STATIONS
- TRAIN START/END STATIONS
- SACRAMENTO RIVER

## CHARACTER IMAGES

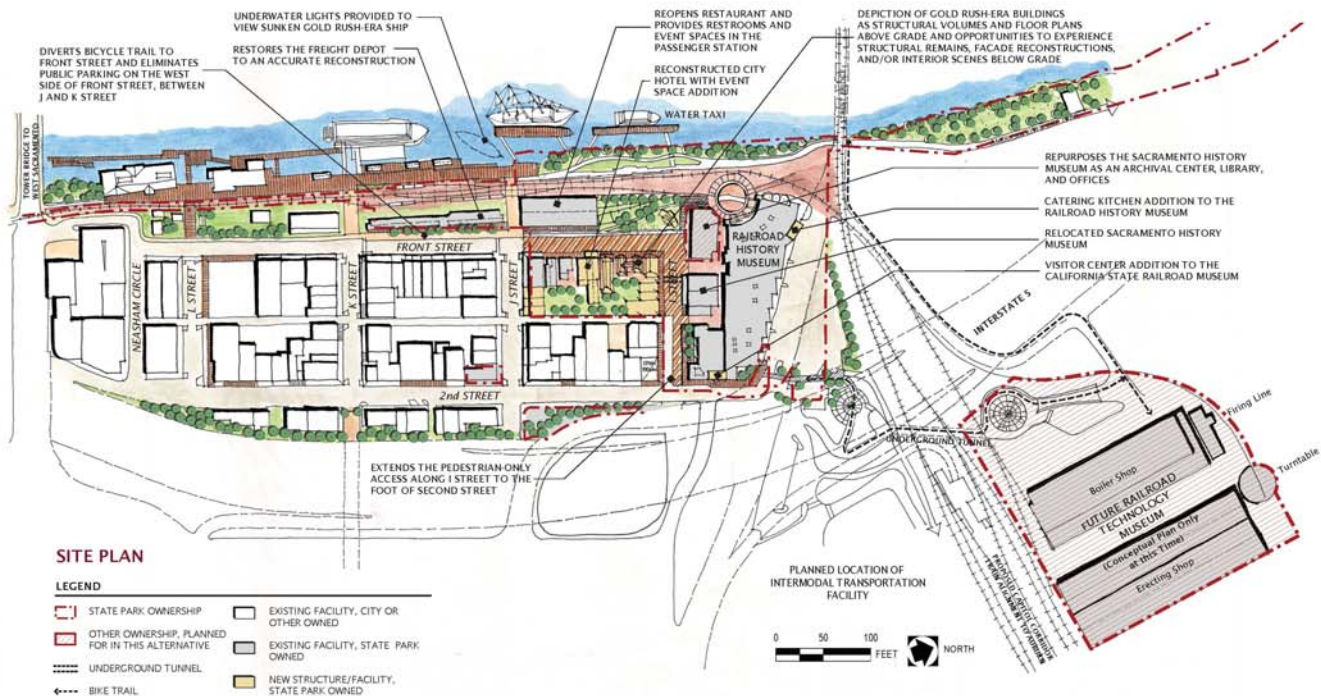


Table C-1: Alternative 1 – Gold Rush History



**Old Sacramento State Historic Park**  
**Draft General Plan Alternatives: Potential Themes, Land Use, and Access**

DRAFT 01/19/2011

ALTERNATIVE 1	
<b>Primary Theme Emphasis Including Period of Significance</b>	<b>Gold Rush History</b> Interprets buildings and activities in Old Sacramento in the years 1848-1852 <i>* California State Museum of Railroad History and Technology becomes a separate classified unit</i>
<b>INTERPRETATION &amp; EDUCATION</b>	
<b>Interpretive Focus</b>	<u>Gold Rush</u> <ul style="list-style-type: none"> <li>Interprets early Gold Rush period architecture and scenes including the living conditions, activities, and commerce of the day</li> <li>Tells the story of "how the world rushed in"</li> </ul> <u>Railroad</u> <ul style="list-style-type: none"> <li>Minor improvements to railroad scenes and facilities</li> </ul> <u>Communication and Commerce</u> <ul style="list-style-type: none"> <li>Interprets the Gold Rush commerce of the tent city</li> </ul> <u>River/Riverfront</u> <ul style="list-style-type: none"> <li>Interprets the story of the riverfront as it was experienced during the Gold Rush period</li> </ul>
<b>RECREATIONAL EXPERIENCES AND RESOURCES</b>	
<b>Visitor Experience</b>	<u>Museum Experiences</u> <ul style="list-style-type: none"> <li>Sacramento History Museum</li> <li>Railroad History Museum and expansion with Railroad Technology Museum</li> <li>Visitor Center at CSRM lobby</li> <li>Old Sacramento School House Museum</li> <li>Potential museum experiences in Gold Rush scene</li> <li>BF Hastings exhibit and museum rooms</li> <li>Wells Fargo Museum</li> </ul> <u>Present Grass Area</u> <ul style="list-style-type: none"> <li>Depicts Gold Rush Era buildings originally located in the area as structural volumes and floor plans; may reconstruct one or more additional buildings for potential concession use (hotel) and/or event space</li> <li>Conducts tours through structural volumes and original Gold Rush period grade to highlight structural remains, façade reconstructions, and/or interior scenes of the Gold Rush period</li> <li>Uses the Front Street right-of-way between the present grass area and Central Pacific Railroad Passenger Station events and activities</li> </ul> <u>Excursion Train</u> <ul style="list-style-type: none"> <li>Extends the excursion train to the Sacramento Zoo with potential stops at Crocker Art Museum, Miller Park, Baths</li> <li>Maintains existing boarding at Freight Depot in Old Sacramento</li> </ul> <u>River/Riverfront</u> <ul style="list-style-type: none"> <li>Provides underwater lights to view a sunken Gold Rush-era ship at the foot of J Street</li> <li>Interprets historic river elevation at Riverfront Park through interpretive signs</li> </ul> <u>Parks, Open Space, and Urban Design</u> <ul style="list-style-type: none"> <li>Includes a picnic area and outdoor stage in front of current Sacramento History Museum building (101 I Street); maintains existing track</li> <li>Includes landscaped plaza and gathering spaces in the grass area (may be within building volumes or other areas)</li> <li>Creates unobstructed views and access to the waterfront from I Street and J Street</li> <li>Interprets historic street and lot line divisions of the Gold Rush Period (may be through paved or brick outlines on ground)</li> <li>Adds gateway monument and signs at I and Second; J or K and Front</li> </ul> <u>Visitor Amenities</u> <ul style="list-style-type: none"> <li>Adds an addition and extension of CSRM lobby for use as small visitor center for ticket sales and tour and event information</li> <li>Includes public restroom and food service facilities at all appropriate locations</li> <li>Adds additional shading and landscaping with the development of the grass area</li> </ul> <u>Public Safety</u> <ul style="list-style-type: none"> <li>Requires small increase in Public Safety staff to effectively patrol and respond to visitor incidents:               <ol style="list-style-type: none"> <li>On the Sacramento River</li> <li>During increased operating hours</li> <li>To the addition of a tunnel from Old Sacramento to the Railyards and North Sacramento</li> </ol> </li> <li>Requires increase in Public Safety equipment to effectively patrol and respond to visitor incidents:               <ol style="list-style-type: none"> <li>On the Sacramento River</li> </ol> </li> </ul>
<b>PARK OPERATIONS</b>	
<b>Facility Use – State Park Owned</b>	<u>Grass Area</u> <ul style="list-style-type: none"> <li>Interpretation</li> <li>Reconstructed 1840s/50s buildings</li> <li>Volume of buildings</li> <li>Underground tours</li> <li>Potential concessions</li> <li>Events and activities</li> </ul> <u>Big Four Building and Dingley Spice Mill</u> <ul style="list-style-type: none"> <li>Becomes site for the Sacramento History Museum</li> <li>Repurposes basement and adds connection to Gold Rush scene via underground tunnel</li> </ul> <u>Passenger Station</u> <ul style="list-style-type: none"> <li>Existing interpretive use</li> <li>Re-opens restaurant</li> <li>Restrooms</li> <li>Event space</li> </ul> <u>Freight Depot</u> <ul style="list-style-type: none"> <li>Restores the Freight Depot to an accurate reconstruction by removing public market additions</li> <li>Maintains passenger ticketing and boarding</li> </ul>

Table C-1 (continued): Alternative 1 – Gold Rush History

ALTERNATIVE 1	
	<p><u>Railroad History Museum</u></p> <ul style="list-style-type: none"> <li>Adds an addition to the east end of the building for Visitor Center</li> <li>Adds catering kitchen at the back side of the museum</li> </ul> <p><u>Railroad Technology Museum</u></p> <ul style="list-style-type: none"> <li>Museum expansion focused on railroad science and engineering located in historic Southern Pacific shops (the Railyards) in Boiler Shop and Erecting Shop</li> </ul> <p><u>BF Hasting Building</u></p> <ul style="list-style-type: none"> <li>No change from existing use</li> </ul> <p><u>Pony Express Park</u></p> <ul style="list-style-type: none"> <li>No change from existing use</li> </ul>
Facility Use – City or Other Owned	<p><u>Sacramento History Museum</u></p> <ul style="list-style-type: none"> <li>Moves the Sacramento History Museum functions to Big Four Building, with basement tunnel underground connecting to the Gold Rush scene</li> <li>Repurposes existing building as State Parks archival center, library, and offices</li> </ul> <p><u>Hall, Luhrs &amp; Co.</u></p> <ul style="list-style-type: none"> <li>No change from existing use</li> </ul> <p><u>Old Sacramento School House</u></p> <ul style="list-style-type: none"> <li>No change from existing use</li> </ul> <p><u>Other</u></p> <ul style="list-style-type: none"> <li>None</li> </ul> <p><u>Property Acquisitions</u></p> <ul style="list-style-type: none"> <li>City and State Parks trade property</li> <li>Requires future land swap of waterfront property along the Railyards site for the Railroad Technology Museum properties (common to all alternatives)</li> <li>Requires I Street easement or title transfer from City in front of the Railroad History Museum</li> </ul>
Unit Classification	<p><u>Park Management</u></p> <ul style="list-style-type: none"> <li>Old Sacramento State Historic Park and California State Museum of Railroad History and Technology operate as two separate classified park units</li> </ul>
ACCESS AND CIRCULATION	
	<p><u>Roadways/Parking</u></p> <ul style="list-style-type: none"> <li>Maintains existing roadways, eliminates diagonal parking on the west side of Front Street from J Street to K Street</li> <li>Requires I Street closure in front of the Railroad History Museum</li> </ul> <p><u>Public Transit</u></p> <ul style="list-style-type: none"> <li>Improves transit access to the Park via street trolley, light rail, train, water taxi, bicycle</li> <li>Bus drop off at north end of Second Street</li> </ul> <p><u>Pedestrian-Only Access</u></p> <ul style="list-style-type: none"> <li>Maintains the 1849 Scene as a pedestrian-only zone with vehicular access restricted on Front Street at J Street and on I Street at the alley; and includes half of I Street between Second Street and the alley for pedestrian-only access</li> </ul> <p><u>Bike Trails/Access</u></p> <ul style="list-style-type: none"> <li>Creates bike lane from J Street to Neasham Circle on west side of Front Street</li> <li>Diverts bicycle traffic from the bike trail down J Street to Front Street</li> <li>Improves connectivity along bike trail between I Street and J Street</li> <li>Improves connectivity at Capitol Mall and Front Street</li> <li>Improves connectivity into Land Park</li> <li>Creates bicycle linkage from Old Sacramento to Railyards</li> </ul>

The comments received from the public workshop are provided in the meeting summary for Public Workshop #2, found on the General Plan project website:

[www.parks.ca.gov/osshpgenplan](http://www.parks.ca.gov/osshpgenplan).

## TRANSPORTATION, COMMUNICATION, AND COMMERCE

**ZONE MAP**

**LEGEND**

- COMMUNICATION AND COMMERCE ZONE
- TRANSPORTATION ZONE
- RIVER ZONE
- VIEW AND ACCESS
- GATEWAY
- BIKE TRAIL
- TUNNEL
- CONNECTION TO UNDERGROUND

**Map Labels:**

- TOWER BRIDGE TO WEST SACRAMENTO
- HEASIAM CIRCLE
- 1<sup>ST</sup> STREET
- 2<sup>ND</sup> STREET
- UNDERGROUND TUNNEL TO DOWNTOWN PLAZA
- HORSE CAR LOOP
- RESTORED FREIGHT DEPOT
- RESTORED PASSENGER STATION
- RAILROAD HISTORY MUSEUM
- BF HASTINGS BUILDING
- PONY EXPRESS PARK
- RIVERFRONT PARK
- STREET BRIDGE
- AMERICAN RIVER BIKE TRAIL
- INTERSTATE 5
- UNDERGROUND TUNNEL
- FUTURE RAILROAD TECHNOLOGY MUSEUM (Conceptual Plan Only at this Point)

## A painting of a busy 19th-century street scene. In the foreground, a horse-drawn carriage is being maneuvered by a driver and several attendants. A large crowd of people, including men in top hats and women in long dresses, is gathered around. In the background, there are industrial buildings, a factory with a tall chimney, and a horse-drawn train. The scene is set in a city with cobblestone streets and a mix of residential and commercial architecture.

A photograph of a horse-drawn trolley in front of a historic building. The trolley is white with a brown roof and has "HISTORIC RAIL GLE" written on its side. It is being pulled by a team of brown horses. Several people are standing on the trolley and on the sidewalk. The building in the background has a dark, gabled roof and white awnings over the windows.

A photograph of a traditional thatched-roof building, likely a historical site or museum exhibit, with a person sitting on a bench in front of it. The building has a steep, conical thatched roof and a dark wooden door. A person is sitting on a low wooden bench in front of the door. The scene is dimly lit, with a warm, yellowish light source visible on the right side of the frame.

**RESTORES THE FREIGHT DEPOT TO AN ACCURATE RECONSTRUCTION**

**HISTORIC TRAIN TRACKS RECONSTRUCTED FOR OUTDOOR DISPLAY OF TRAINS AND EXCURSION TRAIN TRAVEL ALONG FRONT STREET**

**RESTORES THE 1870 COMMERCIAL SCENE ABOVE GRADE AND THE GOLD RUSH ERA UNDERGROUND**

**RESTORES THE PASSENGER STATION TO ITS 1873 APPEARANCE WITH A RESTAURANT, RESTROOMS, AND EXCURSION TRAIN BOARDING**

**WATER TAXI DOCKING TERMINAL/VIEWING OF SUNKEN SHIP**

**WATER TAXI/ PUBLICLY ACCESSIBLE DOCK/DISPLAY OF 19TH AND 20TH C. SHIPS**

**HISTORIC TRAIN TRACKS RECONSTRUCTED FOR OUTDOOR DISPLAY OF TRAINS ALONG I STREET**

**STREET BRIDGE**

**AMERICAN RIVER BIKE TRAIL**

**ADDS AN INTERPRETIVE WALK ALONG THE FORMER TRANS-CONTINENTAL RAILROAD SEGMENT CONNECTING THE RAILROAD TECHNOLOGY MUSEUM TO OLD SACRAMENTO**

**REPURPOSES SACRAMENTO HISTORY MUSEUM TO STATE PARK OFFICES**

**CATERING KITCHEN ADDITION TO THE RAILROAD HISTORY MUSEUM**

**REPURPOSES THE BIG FOUR AND DINGLEY SPICE MILL FOR INTERPRETIVE/COMMERCIAL USES INCLUDING FOOD SERVICE AND EVENT SPACE, AND A CATERING KITCHEN IN THE BASEMENT**

**REPURPOSES THE COURTYARD NEXT TO THE DINGLEY SPICE MILL AS OUTDOOR DINING SPACE**

**INTERSTATE 5**

**TO CAPITOL MALL**

**RESTAURANT CIRCLE**

**1ST STREET**

**2ND STREET**

**FRONT STREET**

**RAILROAD HISTORY MUSEUM**

**HALL, LUHR'S & CO. FUNCTIONS AS A VISITOR CENTER AND SACRAMENTO HISTORY MUSEUM WITH ACCESS TO THE OLD SACRAMENTO UNDERGROUND TOUR**

**EXTENDS THE PEDESTRIAN-ONLY ZONE ALONG I STREET TO THE FOOT OF SECOND STREET**

**HORSE CAR LOOP INTEGRATED INTO THE STREET PAVING**

**PONY EXPRESS TRAIL DELINEATED THROUGH OLD SACRAMENTO**

**LEGEND**

- STATE PARK OWNERSHIP
- OTHER OWNERSHIP, PLANNED FOR IN THIS ALTERNATIVE
- OTHER OWNERSHIP, POTENTIAL EXPANSION AREAS
- BIKE TRAIL
- PONY EXPRESS TRAIL
- EXISTING FACILITY, CITY OR OTHER OWNED
- EXISTING FACILITY, STATE PARK OWNED
- NEW STRUCTURE/FACILITY, STATE PARK OWNED
- UNDERGROUND TUNNEL

**PLANNED LOCATION OF INTERMODAL TRANSPORTATION FACILITY**

**0 50 100 FEET**

**NORTH**

**Boiler Shop**

**FUTURE RAILROAD TECHNOLOGY MUSEUM**

**Construction Train Shop**

**Erecting Shop**

**Turning Line**

**Turntable**

**RAILROAD HISTORY MUSEUM**

Table C-2: Alternative 2 – Transportation, Communication and Commerce



**Old Sacramento State Historic Park**  
**Draft General Plan Alternatives: Potential Themes, Land Use, and Access**

DRAFT 01/19/2011

ALTERNATIVE 2	
<b>Primary Theme Emphasis Including Period of Significance</b>	<b>Transportation, Communication, and Commerce</b> Focuses on the influence of transportation, communication, and commerce on the growth of Sacramento including the greater Sacramento region during the period 1840s to 1880s, but allows for other periods to be interpreted
<b>INTERPRETATION &amp; EDUCATION</b>	
<b>Interpretive Focus</b>	<p><u>Gold Rush</u></p> <ul style="list-style-type: none"> <li>Interprets the early Gold Rush scene at its historic (lower) elevation underground as part of the commercial scene</li> </ul> <p><u>Railroad</u></p> <ul style="list-style-type: none"> <li>Expands railroad activities, exhibits, and events into the outdoor spaces of the park</li> <li>Showcases transportation technologies over time</li> </ul> <p><u>Communication and Commerce</u></p> <ul style="list-style-type: none"> <li>Tells the story of transportation, communication, and commerce in Sacramento</li> <li>Highlights 1870s Front Street scene, creating linkage to current commercial district in Old Sacramento</li> </ul> <p><u>River/Riverfront</u></p> <ul style="list-style-type: none"> <li>Interprets the river/riverfront as a key transportation system promoting the growth and development of the city</li> </ul>
<b>RECREATIONAL EXPERIENCES AND RESOURCES</b>	
<b>Visitor Experience</b>	<p><u>Museum Experiences</u></p> <ul style="list-style-type: none"> <li>Sacramento History Museum</li> <li>Railroad History Museum, and expansion with Railroad Technology Museum</li> <li>Visitor Center in Hall, Luhrs &amp; Co.</li> <li>Old Sacramento School House Museum (new location)</li> <li>Adds an interpretive walk/bike path along the former transcontinental railroad segment connecting the Railroad Technology Museum to Old Sacramento</li> <li>Emphasizes the Pony Express western terminus and path through Old Sacramento with interpretive markers or paving</li> <li>BF Hastings exhibits and museum rooms</li> <li>Wells Fargo Museum</li> </ul> <p><u>Present Grass Area</u></p> <ul style="list-style-type: none"> <li>Depicts late 19<sup>th</sup> century buildings originally located along Front Street for potential concession and/or event use</li> <li>Includes development of Gold Rush period scenes including structural remains, potential façade reconstructions, and/or interior scenes of the Gold Rush period</li> <li>Converts Big Four Building and Dingley Spice Mill to active interpretive/commercial use appropriate to the period. May include new concession in Dingley Steam Coffee and Spice Mill</li> <li>Re-opens Silver Palace Restaurant as concession in Passenger Station</li> </ul> <p><u>Excursion Train</u></p> <ul style="list-style-type: none"> <li>Extends the excursion train line to Hood with potential stops at Crocker Art Museum, Miller Park, Baths, the Sacramento Zoo, and Freeport with an operating schedule of 60 days/year to Hood with two round trips daily</li> <li>Allows for riverboat interface at Old Sacramento, Freeport, or Hood</li> <li>Reconstructs historic rail line on the western edge of Front Street</li> <li>Develops boarding location in Central Pacific Railroad Passenger Station. Line runs down Front Street and connects back into mainline at Waterfront Park (removes School House)</li> <li>Reconstructs historic rail line along I Street in front of Big Four Building and Railroad History Museum</li> <li>Recreates historic horse car loop connecting along I Street, Front Street, L Street, and Second Street</li> </ul> <p><u>River/Riverfront</u></p> <ul style="list-style-type: none"> <li>Constructs a new dock along Riverfront Park for public access and for the display of 19<sup>th</sup> and 20<sup>th</sup> century river vessels</li> <li>Includes a water taxi at the foot of I Street</li> <li>Provides underwater lights to view a sunken Gold Rush-era shipwreck at the foot of J Street</li> <li>Interprets historic river elevation at Riverfront Park through interpretive signs</li> </ul> <p><u>Parks, Open Space, and Urban Design</u></p> <ul style="list-style-type: none"> <li>Establishes event and activity space in the grass area behind and perhaps below the reconstructed 1870s commercial scene</li> <li>Adds gateway monuments and signs on I and Second; J or K and Front</li> </ul> <p><u>Visitor Amenities</u></p> <ul style="list-style-type: none"> <li>Adds visitor center on the ground floor of Hall, Luhrs &amp; Co. providing visitor orientation, concierge services, ticket sales, tour and event information, museum store, and departure for underground tours</li> <li>Includes public restroom facilities at all appropriate locations</li> <li>Adds additional shading and landscaping with the development of the grass area</li> </ul> <p><u>Public Safety</u></p> <ul style="list-style-type: none"> <li>Requires significant increase in Public Safety staff to effectively patrol and respond to visitor incidents:             <ol style="list-style-type: none"> <li>On the Sacramento River</li> <li>During increased operating hours</li> <li>To the addition of a tunnel from Old Sacramento to the Railyards and North Sacramento</li> <li>On 17-miles of active railroad tracks from Old Sacramento to the town of Hood</li> </ol> </li> <li>Requires significant increase in Public Safety equipment to effectively patrol and respond to visitor incidents:             <ol style="list-style-type: none"> <li>On the Sacramento River</li> <li>On 17-miles of railroad right-of-way from Old Sacramento to the town of Hood</li> </ol> </li> </ul>
<b>PARK OPERATIONS</b>	
<b>Facility Use – State Park Owned</b>	<p><u>Grass Area</u></p> <ul style="list-style-type: none"> <li>Interpretation</li> <li>Reconstructed 1870s buildings</li> <li>Underground tours</li> <li>Lower level depiction of Gold Rush era buildings and activities</li> <li>Potential concessions</li> <li>Events and activities</li> </ul> <p><u>Big Four Building and Dingley Spice Mill</u></p> <ul style="list-style-type: none"> <li>Repurposes first and second floors as interpretive/commercial space, including food service (Dingley Steam Coffee and Spice Mill, Stanford Bros Dry Goods, etc) and event space</li> <li>Adds catering kitchen to support event space in basement</li> </ul>

Table C-2 (continued): Alternative 2 – Transportation, Communication and Commerce

ALTERNATIVE 2	
	<p><u>Passenger Station</u></p> <ul style="list-style-type: none"> <li>Restores Passenger Station to 1873 interior appearance</li> <li>Becomes boarding and departure location (Hahn painting) for Sacramento Southern Railroad (excursion train) which then travels up Front Street</li> <li>Re-opens restaurant</li> <li>Restrooms</li> <li>Event space</li> </ul> <p><u>Freight Depot</u></p> <ul style="list-style-type: none"> <li>Restores the Freight Depot to an accurate reconstruction by removing public market additions</li> <li>Eliminates passenger ticketing and boarding</li> <li>Adds exhibits about freight transportation and commerce</li> </ul> <p><u>Railroad History Museum</u></p> <ul style="list-style-type: none"> <li>Redesigns front of museum to blend with 1870s character</li> <li>Adds catering kitchen at back side of museum building</li> <li>Adds courtyard (outdoor) dining connected to Dingley eating venue</li> </ul> <p><u>Railroad Technology Museum</u></p> <ul style="list-style-type: none"> <li>Museum expansion focused on railroad science and engineering located in historic Southern Pacific shops (the Railyards) in Boiler Shop and Erecting Shop</li> </ul> <p><u>BF Hastings Building</u></p> <ul style="list-style-type: none"> <li>No change from existing use</li> </ul> <p><u>Pony Express Park</u></p> <ul style="list-style-type: none"> <li>No change from existing use</li> </ul>
<b>Facility Use – City or Other Owned</b>	<p><u>Sacramento History Museum</u></p> <ul style="list-style-type: none"> <li>Moves Sacramento History Museum to Hall, Luhrs &amp; Co.</li> <li>Repurposes existing building as State Parks archival center, library, and offices</li> </ul> <p><u>Hall, Luhrs &amp; Co.</u></p> <ul style="list-style-type: none"> <li>Houses Sacramento History Museum with access to underground tours through existing basement facilities</li> <li>Adds a Visitor Center inside the museum</li> </ul> <p><u>Old Sacramento School House</u></p> <ul style="list-style-type: none"> <li>No change from existing use, but is relocated to a site in Old Sacramento to be determined (accommodates train tracks)</li> </ul> <p><u>Other</u></p> <ul style="list-style-type: none"> <li>None</li> </ul> <p><u>Property Acquisitions</u></p> <ul style="list-style-type: none"> <li>Hall, Luhrs &amp; Co. acquired by State Parks to house visitor center and Sacramento History Museum, then traded with City for the Sacramento History Museum building</li> <li>Potentially expands the ownership boundaries of the State Park to include other Old Sacramento properties</li> <li>Requires State Parks to obtain properties for the Railroad Technology Museum</li> <li>State Parks would acquire an access easement through the Railyards site for the interpretive walk along the path of the Transcontinental Railroad</li> <li>Requires I Street easement or title transfer from City in front of the Railroad History Museum</li> </ul>
<b>Unit Classification</b>	<p><u>Park Management</u></p> <ul style="list-style-type: none"> <li>Old Sacramento State Historic Park and the California State Museum of Railroad History and Technology are classified as one park unit</li> </ul>
<b>ACCESS AND CIRCULATION</b>	
	<p><u>Roadways/Parking</u></p> <ul style="list-style-type: none"> <li>Reconfigures Front Street as a one way lane, heading south with diagonal parking on the east side only, a horse car track, and train tracks double tracked along Front Street for the excursion train</li> <li>Closes I Street in front of Railroad History Museum</li> </ul> <p><u>Public Transit</u></p> <ul style="list-style-type: none"> <li>Emphasizes new transit access to the park via street trolley, light rail, train, water taxi, horse-drawn carriage, and bicycle</li> <li>Bus drop off at north end of Second Street</li> </ul> <p><u>Pedestrian-Only Access</u></p> <ul style="list-style-type: none"> <li>Extends the pedestrian-only zone along I Street to the foot of Second Street and to the waterfront</li> </ul> <p><u>Bike Trails/Access</u></p> <ul style="list-style-type: none"> <li>Creates connectivity of bike trail from I Street Bridge to Capitol Mall via boardwalk extension, requiring the removal of some existing railroad track along the boardwalk</li> <li>Improves connectivity along entire railroad right-of-way</li> <li>Creates bicycle linkage from Old Sacramento to Railyards</li> </ul>

### Exhibit C-3: Alternative 3 – Old Sacramento Through Time

## OLD SACRAMENTO THROUGH TIME

Equally emphasizes Gold Rush, River, and Railroad history, as well as related architectural and archaeological features from mid-19th century, and following through key historical periods in Old Sacramento's development



## CHARACTER IMAGES



JORVIK VIKING CENTRE, YORK, ENGLAND



DISPLAY OF SHIPS AT INNER HARBOR, BALTIMORE, MD



FREEDOM TRAIL, BOSTON, MA



GRASS AMPHITHEATER, NAPERVILLE, IL

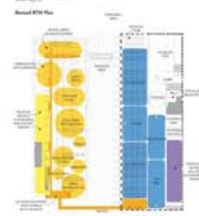
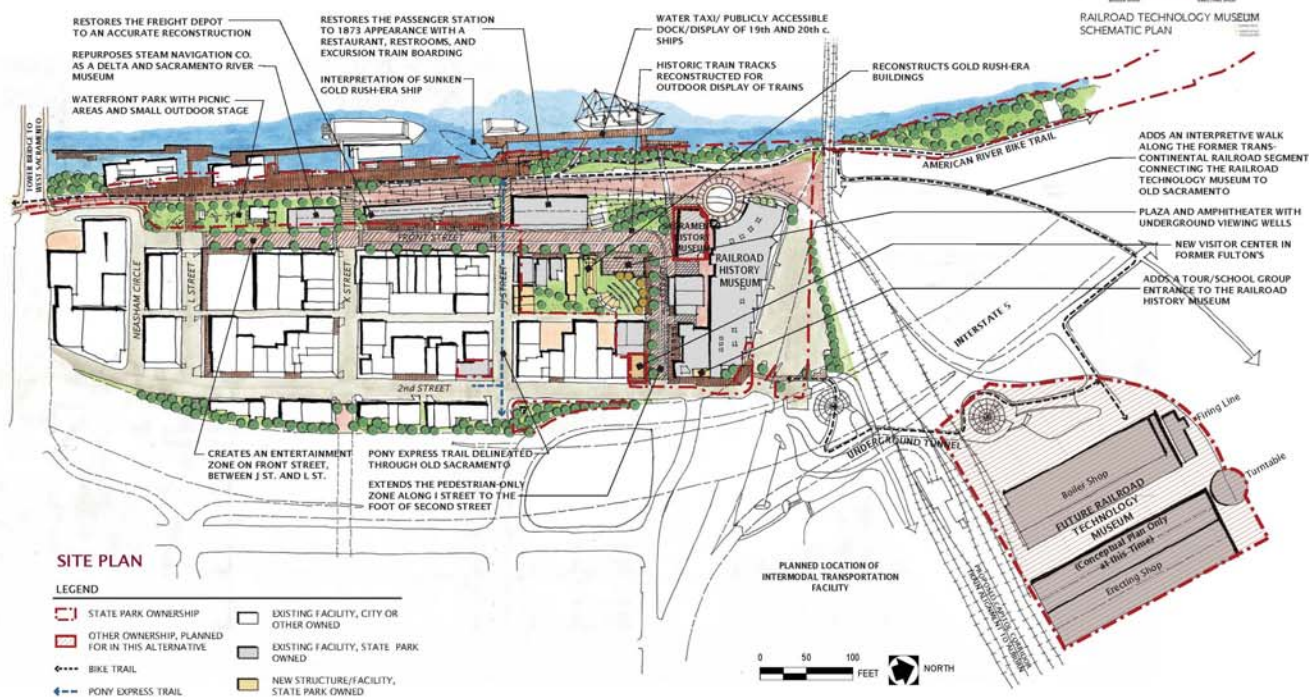
RAILROAD TECHNOLOGY MUSEUM  
SCHEMATIC PLAN

Table C-3: Alternative 3 – Old Sacramento Through Time



## Old Sacramento State Historic Park

## Draft General Plan Alternatives: Potential Themes, Land Use, and Access

DRAFT 01/19/2011

ALTERNATIVE 3	
<b>Primary Theme Emphasis Including Period of Significance</b>	<b>Old Sacramento History Through Time</b> Equally emphasizes Gold Rush, River, and Railroad history, as well as related architectural and archaeological features from mid-19 <sup>th</sup> century, and following through key historical periods in Old Sacramento's development
<b>INTERPRETATION &amp; EDUCATION</b>	
<b>Interpretive Focus</b>	<p><u>Gold Rush</u></p> <ul style="list-style-type: none"> <li>Expands interpretation of the Gold Rush story, scenes, architecture, and activities</li> </ul> <p><u>Railroad</u></p> <ul style="list-style-type: none"> <li>Expands railroad activities, exhibits, and events into the outdoor spaces of the park</li> <li>Showcases transportation technologies over time</li> </ul> <p><u>Communication and Commerce</u></p> <ul style="list-style-type: none"> <li>Creates opportunities for interpreting both Gold Rush Commerce and its aftermath</li> </ul> <p><u>River/Riverfront</u></p> <ul style="list-style-type: none"> <li>Interprets the riverfront as a landing, ferry terminal, freight and passenger dock</li> <li>Conveys the impact of the river as an avenue of transportation, a force of nature, and a critical part of the Delta environment</li> </ul>
<b>RECREATIONAL EXPERIENCES AND RESOURCES</b>	
<b>Visitor Experience</b>	<p><u>Museum Experiences</u></p> <ul style="list-style-type: none"> <li>Sacramento History Museum</li> <li>Railroad History Museum, and expansion with Railroad Technology Museum</li> <li>Visitor Center in former Fulton's Prime Rib</li> <li>Addition of a Delta and Sacramento River Museum</li> <li>Old Sacramento School House Museum</li> <li>Adds an interpretive walk/bike path along the former transcontinental railroad segment connecting the Railroad Technology Museum to Old Sacramento</li> <li>Emphasizes the Pony Express western terminus and path through Old Sacramento with interpretive markers or paving</li> <li>BF Hastings exhibits and museum rooms</li> <li>Wells Fargo Museum</li> </ul> <p><u>Present Grass Area</u></p> <ul style="list-style-type: none"> <li>Depicts Gold Rush Era buildings originally located in the area as structural volumes and floor plans; may reconstruct one or more additional buildings for potential concession use (hotel) and/or event space. Build out allows for the inclusion of a small amphitheater and plaza with monuments to the period</li> <li>Uses the Front Street right-of-way between the grass area and Central Pacific Passenger Station for events and activities</li> </ul> <p><u>Excursion Train</u></p> <ul style="list-style-type: none"> <li>Reconstructs historic rail line from Passenger Station by Big Four Building (up I Street) and continuing in front of Railroad History Museum for display purposes</li> <li>Reconstructs historic rail line along Front Street to end at K Street for display of trains on Front Street to support events</li> <li>Extends the excursion train line to the Sacramento Zoo with potential stops at Crocker Art Museum, Miller Park, Baths</li> <li>Adds a second excursion train line from Freepoint to Hood with potential for dinner train, brunch train, or other themed-excursions</li> <li>Connects rail segment through Land Park and South Land Park mainly for equipment transfer, not regular passenger operations</li> <li>Constructs historic horse car line in L configuration along I Street and Front Street ending at Neasham Circle</li> <li>Develops boarding location in Central Pacific Railroad Passenger Station. Line runs down existing rail line (may require alteration of corner of freight depot platform)</li> </ul> <p><u>River/Riverfront</u></p> <ul style="list-style-type: none"> <li>Provides interpretation of the sunken Gold Rush era shipwreck</li> <li>Docks a Gold Rush Era ship (replica) at the foot of J Street</li> <li>Includes a joint ticketing office for riverboat and train excursion at the Passenger Station</li> <li>Includes a wharf and water taxi stop at the foot of J Street</li> <li>Repurposes the Steam Navigation Co. as a Delta River Museum with environmental interpretation of the Delta</li> </ul> <p><u>Parks, Open Space, and Urban Design</u></p> <ul style="list-style-type: none"> <li>Creates an amphitheater using current slopes on a portion of the grass area.</li> <li>Includes uniform streetscape and pedestrian improvements to distinguish Old Sacramento as a unique district</li> <li>Adds gateway monument and signs on I Street at Second, and Front at Capitol Mall entrance to Old Sacramento</li> <li>Creates a museum and entertainment district along I Street and Front Street, continuing the pedestrian-only zone along Front Street between J Street and L Street</li> </ul> <p><u>Visitor Amenities</u></p> <ul style="list-style-type: none"> <li>Adds new visitor center facility at former location of Fulton Prime Rib, on the southwest corner of I Street at Second, providing visitor orientation, concierge services, ticket sales, tour and event information, and departure for the underground tour</li> <li>Includes public restroom facilities at all appropriate locations</li> <li>Adds additional shading and landscaping with the development of the grass area</li> </ul> <p><u>Public Safety</u></p> <ul style="list-style-type: none"> <li>Requires significant increase in Public Safety staff to effectively patrol and respond to visitor incidents: <ol style="list-style-type: none"> <li>On the Sacramento River</li> <li>During increased operating hours</li> <li>To the addition of a tunnel from Old Sacramento to the Railyards and North Sacramento</li> <li>On the entire Old Sacramento River front</li> <li>On a second train line running from Hood to Freepoint</li> </ol> </li> <li>Requires significant increase in Public Safety equipment to effectively patrol and respond to visitor incidents: <ol style="list-style-type: none"> <li>On the Sacramento River</li> <li>On the Old Sacramento River front</li> <li>On a second train line running from Hood to Freepoint</li> </ol> </li> </ul>

Table C-3 (continued): Alternative 3 – Old Sacramento Through Time

ALTERNATIVE 3	
<b>PARK OPERATIONS</b>	
<b>Facility Use – State Park Owned</b>	<p><u>Grass Area</u></p> <ul style="list-style-type: none"> <li>• Interpretation</li> <li>• Amphitheater</li> <li>• Reconstructed buildings 1840s/50s</li> <li>• Potential concessions</li> <li>• Underground tours</li> <li>• Events and activities</li> </ul> <p><u>Big Four Building and Dingley Spice Mill</u></p> <ul style="list-style-type: none"> <li>• No change from existing use (office, storage, interpretive/commercial, exhibits, multi-purpose, library)</li> </ul> <p><u>Passenger Station</u></p> <ul style="list-style-type: none"> <li>• Restores the Passenger Station to 1873 interior appearance</li> <li>• Becomes boarding and departure location (Hahn painting) for Sacramento Southern Railroad (excursion train) which then travels along existing line</li> <li>• Re-opens restaurant</li> <li>• Restrooms</li> <li>• Event space</li> </ul> <p><u>Freight Depot</u></p> <ul style="list-style-type: none"> <li>• Restores the Freight Depot to an accurate reconstruction by removing public market additions</li> <li>• Eliminates passenger ticketing and boarding</li> <li>• Makes space available for events and rentals</li> <li>• Interprets agricultural history of California</li> </ul> <p><u>Railroad History Museum</u></p> <ul style="list-style-type: none"> <li>• Develops tour/school group entrance on east side of museum</li> </ul> <p><u>Railroad Technology Museum</u></p> <ul style="list-style-type: none"> <li>• Museum expansion focused on railroad science and engineering located in historic Southern Pacific shops (the Railyards) in Boiler Shop and Erecting Shop</li> </ul> <p><u>BF Hastings Building</u></p> <ul style="list-style-type: none"> <li>• No change from existing use</li> </ul> <p><u>Pony Express Park</u></p> <ul style="list-style-type: none"> <li>• No change from existing use</li> </ul>
<b>Facility Use – City or Other Owned</b>	<p><u>Sacramento History Museum</u></p> <ul style="list-style-type: none"> <li>• No change from existing use</li> </ul> <p><u>Hall, Luhrs &amp; Co.</u></p> <ul style="list-style-type: none"> <li>• No change from existing use</li> </ul> <p><u>Old Sacramento School House</u></p> <ul style="list-style-type: none"> <li>• No change from existing use</li> </ul> <p><u>Other</u></p> <ul style="list-style-type: none"> <li>• Repurposes Steam Navigation Co. to serve as a Delta and Sacramento River Museum</li> </ul> <p><u>Property Acquisitions</u></p> <ul style="list-style-type: none"> <li>• Expands the ownership boundaries of the State Park to include the entire length of the waterfront area in Old Sacramento including portions of properties west of Front Street</li> <li>• Requires State Parks to acquire the Fulton's Prime Rib building</li> <li>• Requires State Parks to obtain properties for the Railroad Technology Museum</li> <li>• State Parks would acquire an access easement through the Railyards site for an interpretive walk along the historic path of the Transcontinental Railroad</li> <li>• Requires I Street easement or title transfer from City in front of the Railroad History Museum</li> </ul>
<b>Unit Classification</b>	<p><u>Park Management</u></p> <p>One classified park unit, but consideration given to new operating structure and governance for all of Old Sacramento</p>
<b>ACCESS AND CIRCULATION</b>	
<p><u>Roadways/Parking</u></p> <ul style="list-style-type: none"> <li>• Closes Front Street public vehicle traffic from J Street to L Street</li> <li>• Includes a horse car track in an "L" shape</li> </ul> <p><u>Public Transit</u></p> <ul style="list-style-type: none"> <li>• Emphasizes new transit access to the park via street trolley, light rail, train, water taxi, horse-drawn carriage, and bicycle</li> <li>• Bus drop off at north end of Second Street</li> </ul> <p><u>Pedestrian-Only Access</u></p> <ul style="list-style-type: none"> <li>• Extends the pedestrian-only zone along I Street to the waterfront and on Front Street from J Street to L Street</li> </ul> <p><u>Bike Trails/Access</u></p> <ul style="list-style-type: none"> <li>• Creates connectivity of bike trail from I Street Bridge to Capitol Mall via a boardwalk extension, requiring removal of track on boardwalk</li> <li>• Improves connectivity along entire railroad right-of-way</li> <li>• Creates bicycle linkage from Old Sacramento to Railyards</li> </ul>	

### C.3 PUBLIC WORKSHOP #3: PRESENTATION OF DRAFT PREFERRED SITE CONCEPT PLAN

The third public workshop presented and gathered public input on a Draft Preferred Concept Plan for the future use and management of OSSHP. The public was asked to respond to features they like or didn't like on various components of the preferred concept plan, including the waterfront area, former 1849 Scene, railroad experience, circulation, and any other suggestions for plan improvement. Public input from the draft preferred concept plan was used to develop the Preferred Concept Plan in Chapter 4 of the General Plan. The Draft Preferred Concept Plan (Exhibit C-4), Preferred Excursion Train Concept (Exhibit C-5), and Historic Scene Concept (Exhibit C-6) follow. The comments received from the public workshop are provided in the meeting summary for Public Workshop #3, found on the General Plan project website: [www.parks.ca.gov/osshpgenplan](http://www.parks.ca.gov/osshpgenplan).

Exhibit C-4: Draft Preferred Concept Plan

CHARACTER IMAGES



PASSENGER STATION, 1873 APPEARANCE

HORSE CAR EXHIBITION DURING RAILFAIR 1999

JORVIK VIKING CENTRE, YORK, ENGLAND;  
VISITOR CENTER/MUSEUM EXAMPLE

1849 SITE UNCOVERED SHOWING SIDEWALK BUTTRESSES  
FROM STREET RAISING

SACRAMENTO IN 1850 FROM THE FOOT OF J STREET

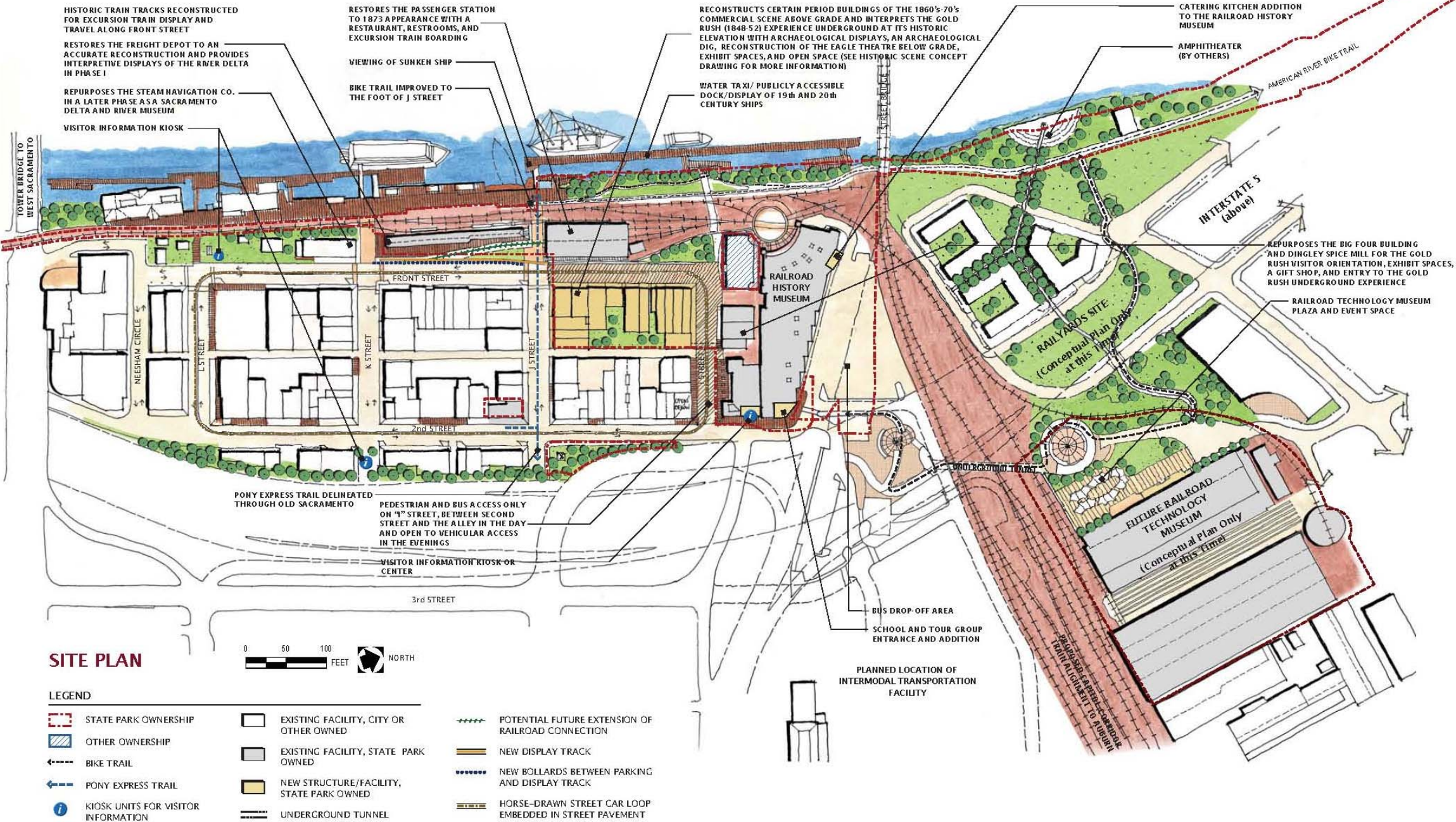
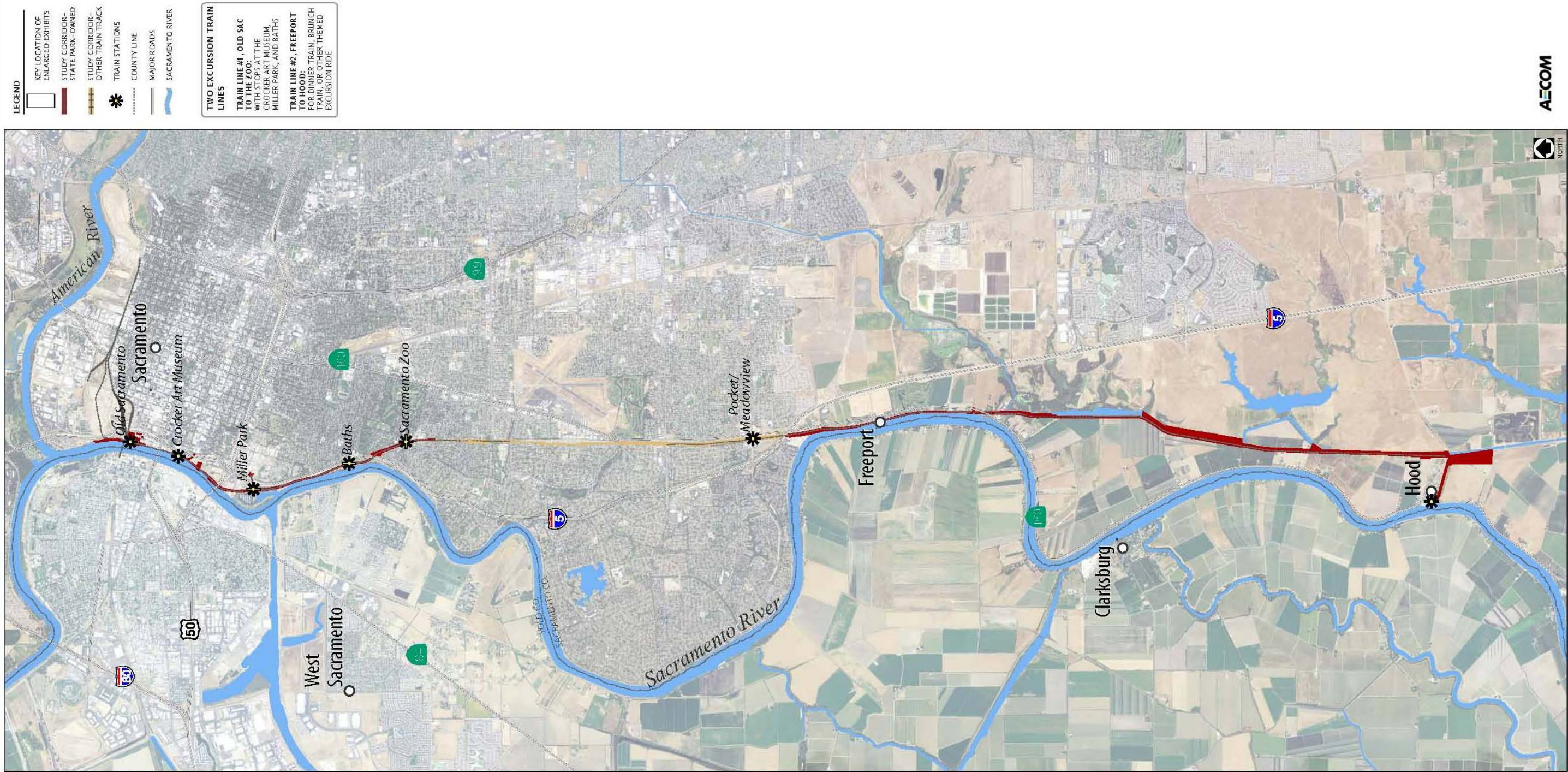


Exhibit C-5: Preferred Excursion Train Concept



## CONCEPTUAL SITE PLAN



FRONT STREET SECTION-ELEVATION

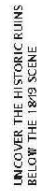


BIRD'S EYE VIEW FROM THE ALLEY

## 1870'S COMMERCIAL INTERPRETATION AT STREET GRADE

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## LIBRARY OF CONGRESS, - 850



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## **APPENDIX D**

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### **Supplemental Cultural and Historical Resources Information**



## D.1 HISTORICAL BACKGROUND AND HISTORY

In the early days of settlement, the City of Sacramento was shaped by a collection of opportunistic business decisions by a few business-savvy and influential capitalists rather than by careful planning of where and how to build a sustainable community.<sup>1</sup> Only later did leaders of the community address problems resulting from short-term choices that were made in the early years of the city.

In 1840, John Sutter settled on nearly 44,000 acres (later increased to 132,000 acres) of land granted to him by the Mexican government, which he named New Helvetia (Nueva Helvetia in Spanish, meaning "New Switzerland"). He built a fort as his headquarters, strategically located a couple miles inland from the confluence of the Sacramento and American Rivers on a higher knoll above the level of seasonal flooding.<sup>2</sup> Sutter planned to develop his properties by exploiting the Native American population in the area for labor and by encouraging nearby settlement of other Europeans and Americans to make his fort a commercial center for the region. Unfortunately for this aspiring empire-builder, James Marshall's 1848 discovery of gold at Sutter's mill in Coloma Valley on January 24, 1848, attracted large numbers of emigrants, who would overrun and redirect Sutter's vision.

It was the next generation of opportunistic city-builders, led by Sam Brannan, who recast Sutter's vision. Brannan's many business ventures in January 1848 included a store at Sutter's Fort and a San Francisco-based newspaper called the *California Star*. While Sutter tried to keep the gold discovery a secret, Brannan quickly stocked his store with mining supplies and then widely publicized the discovery, quickly profiting from the rush of folks eager to strike it rich in the foothills.<sup>3</sup>

Brannan convinced Sutter's son, John Sutter, Jr., to survey the land for Sacramento City, stretching out three miles from the place, known as Sutter's Embarcadero on the banks of the Sacramento River, just below its confluence with the American River. Its proximity to the two rivers made it a natural transportation route. However, this opportunistic choice failed to consider the geography of the land, especially its propensity to flood.<sup>4</sup> The Sacramento and American Rivers became the city's life blood, providing the key to its success as the gateway to the gold fields and as a major commercial center in young California, but also provided its greatest challenge to survival as a community.

With the help of Peter Burnett, a lawyer (and later, first elected governor of California), Brannan and Sutter Jr. plotted the city and began selling lots in 1849 for \$250. Intense speculation swept the city and lot prices rose quickly; by the end of 1849, lot prices soared to \$8,000.<sup>5</sup> With a little help from an abnormally dry winter, potential buyers were unaware of the issues with the site's geography they would later encounter. Brannan's scheme paid off almost

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<sup>1</sup> Mark A. Eifler, *Gold Rush Capitalists: Gold and Greed in Sacramento* (Albuquerque: University of New Mexico Press, 2002), 39-40.

<sup>2</sup> Steven M. Avella, *Sacramento: Indomitable City* (Charleston: Arcadia, 2003), 22.

<sup>3</sup> Avella, *Sacramento*, 30.

<sup>4</sup> Ibid. 31; Eifler, *Gold Rush Capitalists*, 50.

<sup>5</sup> Ibid., 49, 51, 54.

immediately.<sup>6</sup> However, most Sacramentans were renters or transients who owned nothing.<sup>7</sup> In fact, most of Sacramento's population was made up of miners or those passing through, only staying in Sacramento during the winter months. Many were eager to make their fortune and return home.<sup>8</sup>

In 1849, a small but powerful minority owned most of the land in Sacramento. According to historian Steven Avella, "This loose coalition of merchants, traders, and speculators" were the most vocal in ensuring that the city be a permanent and safe place to do business. Goods and people coming to the bustling city via the Sacramento River were off-loaded from their boats onto the crowded Embarcadero, the heart of commercial and social activities in 1849. Within a year, the city's first city council consisted of land agents and some of the wealthiest men in town, including Sam Brannan.<sup>9</sup> Their political agenda focused on promoting and sustaining this Gold Rush marketplace through which they hoped to get rich.<sup>10</sup> Such things as public health and safety enjoyed little attention from these speculators, leading to conflict with other newcomers, who arrived with their own expectations of a community in the West.<sup>11</sup>

Reflecting the speculators' attitudes, early structures were made from canvas and other provisional materials, and the streets were poorly maintained. New arrivals found shelter in the nearly forty-five wooden buildings, 300 cloth houses, as well as the many campsites that housed hundreds of seasonally unemployed miners and recently-arrived overland migrants and families.<sup>12</sup> By the end of 1850, Sacramento's population reached 10,000.<sup>13</sup> An 1850 Sacramentan described the town:

*The streets are not graded, nor are anything done to clear them out, except cutting down some of the scattering trees which five or six months ago were the sole occupants of the ground. The whole town plot is covered with boxes and barrels, empty or filled with all kinds of goods, in passable, indifferent, or bad order, or totally ruined; and wagons, lumber, glass bottles, machinery, and plunder of all sorts, heaped and scattered and tumbled about in the most admired confusion.*<sup>14</sup>

While they brought little financial capital to Sacramento, many overland migrants possessed a unique desire for community forged after months on the trails, which they subsequently projected onto the development of the city.<sup>15</sup> Differing visions for the city, those that elevated

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<sup>6</sup> Lagomarsino, *Early Attempts*, 5.

<sup>7</sup> Avella, *Sacramento*, 35.

<sup>8</sup> Mary Helmich and Pauline G. Spear, *A Gold Rush Merchant's Manual* (Office of Interpretive Services: California Department of Park and Recreation, 1989), 11.

<sup>9</sup> Avella, *Sacramento*, 35, 36.

<sup>10</sup> Helmich and Spear, *A Gold Rush Merchant's Manual*, 11.

<sup>11</sup> Eifler, *Gold Rush Capitalists*, 69, 89.

<sup>12</sup> Thor Severson, *An Illustrated History: 1839-1874 From Sutter's Fort to Capital City* (California Historical Society, 1973), 90.

<sup>13</sup> Helmich and Spear, *A Gold Rush Merchant's Manual*, 6.

<sup>14</sup> Helmich and Spear, *A Gold Rush Merchant's Manual*, 11; J.S. Holliday, *The World Rushed In: The California Gold Rush Experience* (New York: Simon and Schuster, 1981), 230-231.

<sup>15</sup> Eifler, *Gold Rush Capitalists*, 89.

community and those that valued commerce often came into conflict in 1849 and 1850 and enhanced the sense of confusion and uncertainty in Sacramento.<sup>16</sup>

Much of the square-mile city existed below high river level, from the river banks all the way to the public square on high ground at Tenth and I Street.<sup>17</sup> It did not take long for Sacramento citizens to come face to face with the realities of their physical location. On January 8, 1850, the American River overflowed its banks and within hours, four fifths of the city was under water.<sup>18</sup> Flood waters rushed into the city, quickly erected of canvas and wood, and swept away structures as well as tents, wagons, livestock, and merchandise.<sup>19</sup> A brick building under construction collapsed onto the building next door from the force of the rising waters. Thompson and West reported that “great discomfort was produced by the multitude of dead cattle that were lodged everywhere about the city.” Citizens moved bed-ridden patients from the county hospital to high ground near Sutter’s Fort. Even still, Dr. John Frederick Morse observed that “every one was inclined to believe the ridiculous and false assurances of safety, which could scarcely be extinguished when the city was actually under water. . . It was, in fact, an aquatic carnival, and the town was afloat on a frolic.”<sup>20</sup>

Sentiments of levity quickly ceased. By the time the flood waters receded, the *Daily Alta California* of San Francisco “estimated a loss of one million dollars;” while other estimates ran to three times as much.<sup>21</sup> For most, whether they owned property or not, leaving the now flood-soaked Sacramento was not an option. The economic ties landowners, merchants, and others held to the city prohibited them from giving up and moving to a new location on higher ground.

Sacramento’s underdeveloped and commercially-driven City government no longer served the needs of Sacramento’s residents. According to historian, Mark Eifler, permanent residents wished to “create a city that would support their efforts rather than exploit them.” As such, a new government, one that was both civic-minded and committed to commercial growth, replaced the great speculators and their leadership.<sup>22</sup> The recurring flood waters of the early 1850s gave citizens something around which to rally and helped to re-launch the vision for Sacramento as not just a place to do business, but also a place to live.

After the flood of January 1850, Hardin Bigelow led the citizens in their fight to build a levee. Following the provisional State government’s act formally incorporating Sacramento in February 1850, the city held its first official election and Bigelow became its first mayor, ousting the great speculators from their seats of unofficial political authority. Shortly thereafter, “city voters approved a special \$250,000 tax assessment for the building of a permanent levee.”<sup>23</sup> Upon completion, it ran from Sutterville, west towards the Sacramento River, north along the

<sup>16</sup> Mark Eifler, “Taming the Wild Wilderness Within: Order and Opportunity in Gold Rush Sacramento, 1849-1850,” *California History* 79, no. 4 (Winter 200/2001): 193.

<sup>17</sup> Lagomarsino, *Early Attempts*, 6-7.

<sup>18</sup> Marvin Bienes, “Sacramento Defies the Rivers 1850-1878,” in *California History* 58, no. 1 (Spring 1979): 3.

<sup>19</sup> Joseph McGowan and Terry Willis, *Sacramento, Heart of the Golden State* (Woodland Hills, Windsor Publications, Inc., 1983), 36.

<sup>20</sup> Thompson and West, *A History of Sacramento County* (Oakland: Thompson & West, 1880; reprinted Berkeley: Howell-North, 1960), 67, 69.

<sup>21</sup> Bienes, “Sacramento Defies the Rivers,” 4.

<sup>22</sup> Eifler, *Gold Rush Capitalists*, 3-4.

<sup>23</sup> Ibid, 5.

river, around the edge of Sutter Slough, to the American River and then up the American River to high ground. The levee was three to five feet high, twenty feet wide at the base, and ten feet wide on the top.<sup>24</sup> In November 1850, citizens also took their first step toward improving the condition and appearance of J Street and Front Street. They passed an ordinance that required every property owner or occupant on J Street, between Front and Eighth Streets, and on Front Street, between I and N Streets, to build a sidewalk.<sup>25</sup>

Unfortunately, the city flooded again in the winters of 1852 and 1853. On March 7, 1852, high water breached the levee at several locations near the mouth of the American River, flooding the city. The American River again breached levees in December 1852 and January 1853, compounding the misery caused by the Great Fire in November 1852.<sup>26</sup> The continued inundations rallied public support not only to rebuild the levees, but also to raise and grade a small portion of the business district five feet above the high water mark.<sup>27</sup> More earnest discussions of actually high-grading the streets began and by the end of the year, private citizens and hired contractors lifted J, K, and I Streets as high as five feet, from the levee to the public square on high ground at 10th Street. As hundreds of wagon loads of dirt filled the streets, building owners replaced their old store fronts with new ones to make sure their entrances remained at street level.<sup>28</sup> According to the 1854 Sacramento City Directory, the funds for the projects came from “a pro rata tax upon property owners,” amounting to \$185,460.<sup>29</sup> This young city – led by its established merchant class and new local government – opted to tax itself to alter the natural landscape in hopes of ensuring continued prosperity at its particular location. Before the 1850s were over, Sacramentans spent nearly \$600,000, protecting their city from floods.<sup>30</sup> As the 1854 City Directory explained, “A well-grounded hope is indulged by the citizens of Sacramento, when they gaze upon this apparently impervious piece of workmanship that the day of her affliction is over, at least so far as related to the probability of future overflow.”<sup>31</sup>

Flooding was not the only threat to Sacramento. In a wood and canvas city, fire was a continuing danger. The first volunteer fire department in the far west was established in Sacramento on February 5, 1850.<sup>32</sup> Early Sacramento experienced its share of fires, but the most devastating, known as the “Great Fire of 1852”, nearly wiped out the entire city on the night of November 2nd and day of the 3rd. “In a single night,” reported the Sacramento State Journal, “our beautiful city has been swept away by the terrible element which we are accustomed to associate the end of all earthly things. . . In less than four hours of about 1,500 houses, nothing remained but masses of ashes, burning timbers and heated bricks and at least

<sup>24</sup> Lagomarsino, *Early Attempts*, 9.

<sup>25</sup> Helmich and Spear, *A Gold Rush Merchant's Manual*, 14.

<sup>26</sup> Sacramento Daily Union, March 9, 1852; San Francisco Daily Alta California, March 9, 1852; New York Daily Times, April 13, 1852; San Francisco Daily Alta California, Dec 31, 1852 — *Another Flood at Sacramento*; Sacramento Daily Union, Jan 3, 1853; San Francisco Daily Alta California, Jan 3, 1853; Sacramento Daily Union, Jan 5, 1853; San Francisco Daily Alta California, Jan 11, 1853. More on the Great Fire below.

<sup>27</sup> Bienes, “Sacramento Defies the Rivers,” 7, 12; Lagomarsino, *Early Attempts*, 14.

<sup>28</sup> Lagomarsino, *Early Attempts*, 15-18.

<sup>29</sup> Samuel Colville, *City Directory of Sacramento for the Year 1854-5* (San Francisco: Monson & Valentine, 1854), Center for Sacramento History, Eleanor McClatchy Collection.

<sup>30</sup> Avella, *Indomitable City*, 40.

<sup>31</sup> Colville, *City Directory of Sacramento for the Year 1854-5*.

<sup>32</sup> History of the Sacramento Fire Department, <http://www.sacfire.org/indexSub.cfm?page=342924> . A paid fire department was established on October 1, 1872.

8,000 persons were left houseless... hundreds with nothing but the clothing upon them.”<sup>33</sup> Among the few surviving structures were several early brick buildings, including the Lady Adams Building (built 1849) on K Street between Front and 2nd Streets and the Tehama Block (rebuilt in brick in the summer of 1852, torn down in the 1960s) at the corner of Front and J Streets. Brick became the norm for most rebuilding after the fire.

Between 1854 and 1861, Sacramento prospered economically, socially, and politically while the rivers remained at bay. Permanent brick structures replaced temporary wooden and canvas ones. The city added a courthouse and the City Hall and Water Works building to its urban landscape. In 1854, the State Legislature selected Sacramento as the state capital, a sign of not only its economic importance to California, but the widely held assumption that floods, or any other disaster, no longer posed a threat to the city.

The American and Sacramento Rivers remained below their banks for nearly ten years while residents, businesses, the legislature, and committed trading partners in San Francisco and the foothills and valley benefitted from the relative peace, prosperity, and growth of Sacramento. The city and its neighbors considered its near annihilation wrought by earlier floods as unfortunate flukes and certainly did not worry about future flooding as long as the levee remained intact. In the 1860, City Directory the author boasted, “Eleven years ago where Sacramento stands was an unclaimed wilderness; today by that indomitable energy and perseverance which characterizes the American people, we stand as the second City on the Pacific Coast and there we will stand forever...”<sup>34</sup> The abnormally rainy winter of 1861-1862 challenged these sentiments and forever altered the way Sacramento handled the physical realities of its location.

The winter of 1861-1862 was one of the wettest California winters on record. In Northern California, mining debris piles burst, sending flows of clay and rock onto valley farms and raising streambed levels. Over thirty inches of rain fell over a two month period that winter. The lake, formed by the flood waters in the valley, was sixty miles wide.<sup>35</sup> On December 8, 1861, the American River rose nearly twenty feet, an alarmingly high level for so early in the rainy season.<sup>36</sup> In the morning hours of December 9, the levee in the northeastern part of Sacramento succumbed to the rising river waters, inundating the city.<sup>37</sup> The water rose rapidly, bringing with it a current that was strong enough to imprison many people in their homes, unable to be rescued by mules, horses, wagons, or even boats. Families worked quickly to bring first-story belongings upstairs, while the lucky ones were shuttled to safety by any kind of imaginable watercraft. As the Union reported, “The flood came with the rapidity of a hurricane. In a few hours after the water crossed the levee, the whole city was under water.”<sup>38</sup>

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<sup>33</sup> Sacramento State Journal, Nov. 12, 1852; San Francisco Daily Alta California, Nov 4, 1852; Sacramento Daily Union, Nov 5, 1852.

<sup>34</sup> D.S. Cutter, *Sacramento City Directory for the Year A.D. 1860* (Sacramento: H.S. Crocker & Co., Book and Job Printers, 1859). Center for Sacramento History: Eleanor McClatchy Collection.

<sup>35</sup> Karen M. O'Neill, *Rivers by Design: State Power and the Origins of U.S. Flood Control* (Durham: Duke University Press, 2006), 75.

<sup>36</sup> Thompson and West, *A History*, 69.

<sup>37</sup> Brieness, “Sacramento Defies the Rivers,” 13.

<sup>38</sup> *A Capitol Neighborhood: The Archaeology of the Capitol Area East End Complex* (A Report Prepared for Department of General Services: Sacramento, 2003): 6.88; “A Great Calamity,” Sacramento Union, Dec 11, 1861.

On December 11, 1861, just two days after the first flood of the season, the Union asked its readers, “What next? Is not self protection the first law of nature? Does not necessity demand obedience? Can Sacramento exist as a city without a higher grade and levees . . .?”<sup>39</sup> Even while on the receiving end of a natural disaster, Sacramentans felt tied to the location and were willing to fight for their city.

As with the floods of the early 1850s, some Sacramentans opted to ignore the obvious danger and attempted to enjoy the perceived novelty of the event. Historians Thompson and West wrote:

*Hundreds of boats were afloat up on the streets, some carrying but one passenger, and some a dozen. All seemed to enjoy the novel experience of a boating expedition through the principle streets of a great city. Every balcony was crowded with spectators, and mirth and hilarity prevailed.*<sup>40</sup>

However hard these citizens tried to enjoy the event, they soon found it difficult to do so in the face of so much destruction. Most of the levees remained intact, trapping flood waters inside the city. According to one local newspaper, “The levee is now an injury instead of a benefit, as it confines the water in the city, and causes it to rise higher by probably two feet than it would have done had no levee existed. . .”<sup>41</sup> The city charged the chain gang with the dangerous task of breaching the R Street levee to relieve the city of the excess flood water.<sup>42</sup> Once the chain gang breached the levee, the force of the rushing water was so great that it took twenty-five homes with it, some of which were two stories tall.<sup>43</sup> On December 23, the city flooded again only to be inundated once more on January 9, 1862.<sup>44</sup>

In January 1862, the entire state of California experienced a 200-year storm, compounding the damage in the already flood-soaked Sacramento.<sup>45</sup> Traveling north from Southern California, the great storm dumped over twenty-four inches of rain, “an amount almost equal to Sacramento’s annual rainfall total.”<sup>46</sup> The floods inundated the entire Central Valley. Records show that the winter rains “transformed the Sacramento and San Joaquin Valleys into an inland sea 250 to 300 miles long and 20 to 60 miles wide,” covering the tops of telegraph poles. The floods claimed enough livestock to deplete one fourth of the state’s taxable wealth and effectively ended California’s cattle-based ranchero society.<sup>47</sup> One observer estimated the loss of property as 50-100 million dollars or 100-200 dollars for every person in the state. The storm destroyed one in eight homes statewide, and almost all were damaged to some extent. The

<sup>39</sup> “What Next?” *Sacramento Daily Union*, Dec 11, 1861.

<sup>40</sup> Thompson and West, *A History*, 71.

<sup>41</sup> “A Great Calamity,” *Sacramento Daily Union*, December 11, 1861,

<sup>42</sup> For information on the chain gang, see McGowan and Willis, *Sacramento, Heart of the Golden State*, 39; Joseph McGowan, *History of the Sacramento Valley*, vol. 1 (New York: Lewis Historical Publishing, 1961), 10; Center for Sacramento History, Eleanor McClatchy Collection (Caroline Wenzel Notebooks, Volume 29), 77. “100 Years Ago,” *Sacramento Bee*, Dec 23, 1958; Dolores Saunders, *The Sheriff’s Department of Sacramento County 1850-1879* (Master’s Thesis: CSU Sacramento, 1974), 7.

<sup>43</sup> *A Capital Neighborhood*, 6.88.

<sup>44</sup> Brieness, “Sacramento Defies the Rivers,” 15; McGowan, *History of the Sacramento Valley*, 186.

<sup>45</sup> Wayne E. Engstrom. “The California Storm of January 1862,” *Quaternary Research* 46 (1996): 141.

<sup>46</sup> Steve Mellon, *Sacramento: Then and Now* (Gibsonia: Scripps Howard Publishing Inc., 1994), 18; W. Leonard Taylor and Robert W. Taylor, “The Great California Flood of 1862,” *The Fortnightly Club*, [www.redlandsfortnightly.org/papers/taylor06.htm](http://www.redlandsfortnightly.org/papers/taylor06.htm).

<sup>47</sup> *A Capital Neighborhood*, 3.11; Taylor and Taylor, “The Great California Flood of 1862.”

storm migrated eastward, bringing heavy rainfall to Tennessee and slowing troop movement during Civil War engagements in the area. In San Francisco, the storm reversed fresh-water flows into the Pacific Ocean. According to scientist Wayne Engstrom, “For nearly two weeks fresh water flowed continually seaward through the Golden Gate, without tidal fluctuation. Fresh water covered the surface of the bays for two to three months; bay fisherman often caught fresh water fish during this interval.”<sup>48</sup>

Sacramento received over 400% of normal rainfall that January. The American River levee broke again on January 10th, and residents found themselves subject to hurricane-force winds and five feet of muddy, ice-cold water, rising nearly two feet higher than that of the previous record set on December 9th.<sup>49</sup> Historian Joseph McGowan writes that “dead animals [floated] about the streets, houses were washed off their foundations and the town lost all communication.” Furthermore, “the force of the water was such that one thousand feet of brick wall, fourteen inches thick and twenty four feet high, collapsed.” Sacramento was under water for three months. In the end, four hundred families were left homeless and five thousand individuals were in need of aid.<sup>50</sup> On March 16, 1862, federal land surveyor, William Brewer, wrote in his journal: “I don’t think the city will ever rise from the shock, I don’t see how it can. Yet it has a brighter side. No people can so stand calamity as this people. They are used to it.” In the days and weeks to come, the devastating and unexpected floods forced Sacramentans and their neighbors to come to terms with the reality of the situation in Sacramento. Upon hearing about the disaster, citizens from San Francisco and other nearby towns donated over twenty thousand dollars, food, clothing and blankets for the suffering residents.<sup>51</sup>

Cleaning up after the floods required more of Sacramentans than simply clearing debris from city streets. Civic pride and the faith to continue living in a city so easily subjected to the dangers of two flood-prone rivers waned, and with it, the promise of continued economic and political growth. For the wealthy elite that not only owned much of the property, but held positions of power in local government, moving the city in response to the most recent flooding remained unthinkable. As Barbara Lagomarsino notes, “For men like this, the question was not whether to admit that Sacramento was located on an untenable site for activity and leave, but rather to make sure that the site was, indeed, tenable.”<sup>52</sup> Determined Sacramentans picked up where they left off in the 1850s. They began plotting how best to further modify their environment to match their city-building dreams. Their three-pronged approach—building levees, altering the course of the American River and raising and grading the streets—was an expensive, time-consuming and labor-intensive one. Upon completion, the plan would secure Sacramento’s location in exchange for completely redefining its natural landscape.

On January 8, 1863, a new age dawned for the City of Sacramento. City leaders, railway officials, and practically every citizen gathered on the Front Street levee at the foot of K Street

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<sup>48</sup> Taylor and Taylor, “The Great California Flood of 1862.”

<sup>49</sup> Ibid; “Two Years Ago,” *Sacramento Daily Union*, January 11, 1864.

<sup>50</sup> McGowan, *History of Sacramento Valley*, 186.

<sup>51</sup> William Brewer, *Up and Down California in 1860-1864: The Journal of William H. Brewer* (Berkeley: University of California Press, 1966), 249.

<sup>52</sup> Lagomarsino, *Early Attempts*, 29.

to celebrate the “ground breaking” of the Central Pacific Railroad (CPRR), the Pacific link of the nation’s first transcontinental line. This triumphant occurrence was directly connected to the events of the previous year when flood waters overtook the city, leaving it inundated for over three months. As a reaction to this disaster, the City took quick action, making a shrewd deal by which to prevent flood-related disasters and guarantee a new economic base for the community.

To protect Sacramento’s vibrant business center from future flooding, it was crucial that the Front Street levee on the Sacramento River be increased. The already financially-devastated city did not have the funds to complete the project. In response, city officials struck a deal with the Central Pacific that secured Sacramento as the initial terminus for the transcontinental railway line, in exchange for ownership of land along Front Street. A key part of the agreement was the railroad’s obligation to raise the levee to at least 20 feet above river level before constructing its new rail line in that location. The January 8 “Ground Breaking” actually consisted of the officials taking shovelfuls of dirt from two carts and depositing them on the ground, beginning the process of raising the Front Street levee.<sup>53</sup> This land transfer played an important role in rebuilding Sacramento in the wake of a natural disaster and was but one example of the city’s determination to survive and prosper.

The railroad reinvigorated the business district, allowing many 1850s businesses on Front Street to thrive and adapt as the city grew. Front Street was historically some of the most valuable land in the city, and would continue to be so with the addition of the railroad. Just as the Gold Rush did, the railroad brought thousands from around the world to Sacramento. Here, hotels and retailers took full advantage of the new customers and residents, traveling by rail. Businesses located on the eastern side of Front Street were in a prime location to greet passengers arriving from the East and to put forth the city’s best face.

Sacramento’s physical development soon began to reflect the railroad’s presence in the business district. As the railroad brought more people to the city, the size of businesses grew. Gold Rush-era buildings and businesses began to merge with larger companies as the need for increased retail spaces made these smaller structures impractical continuing and expanding a process started in the 1830s as successful businesses grew. The Baker-Hamilton Company expanded its properties to create multiple stores and warehouses in the half block, bounded by Front, J, and 2nd Streets, often swallowing up smaller stores in the process. Or older buildings were simply torn down and replaced with new larger structures, often covering several lots. A striking surviving example of this trend is the Hall Luhrs & Company Grocers building on Second Street, constructed in 1884. The two-story, brick structure sat atop four separate lots which various businesses had occupied for nearly thirty years. As such, Hall Luhrs & Company had one of the largest stores in Sacramento.

The railroad’s influence on the Front Street area persisted, but also evolved. In 1879, the Central Pacific moved its Passenger Station away from Front Street to the new Arcade Station on 3<sup>rd</sup> Street. By the 1880s, the railroad’s presence on Front Street focused on freight activities

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<sup>53</sup> “Pacific Railroad,” *Sacramento Daily Bee*, Jan 8, 1863; “Pacific Railroad Inauguration,” *Sacramento Daily Union*, Jan 9, 1863

and facilities, transitioning the area away from its retail-centered origins and toward warehousing. Thus 1879-1880 would mark a major transition as passengers and those businesses serving them left the area of Front Street, and especially the block between I and J Streets. Commercial and warehousing were the new dominant activity, well into the 20th century.

### D.1.1 RAILROADS IN OLD SACRAMENTO

The first steam railroad in California and the far West was the Sacramento Valley Railroad (SVRR), founded in Sacramento in 1852. The railroad was laid out by Theodore Judah, who arrived in California in May 1854, hired for the purpose. Ground was broken in February 9,<sup>54</sup> 1855 and the line was completed to Folsom in February 22, 1856. It was the first railroad on the Sacramento waterfront, entering Sacramento along the alignment of R Street and following the river as far north as K Street. Its route along the river is generally followed today by the California State Railroad Museum's (CSRM's) Sacramento Southern Railroad.

The CPRR was founded in Sacramento in 1862. Promoted by Theodore Judah, prominent founders included Sacramento shop keepers Leland Stanford (who also was elected California Governor), Collis P. Huntington, Mark Hopkins, and Charles Crocker. Prominent local attorney E. B. Crocker (brother of Charles Crocker and for a time a California Supreme Court Judge) soon joined the railroad. Ground was broken in January 8, 1863 at Front & K Street, and the first rail was laid at Front and I Street on October 26 of that year, both sites within the boundaries of Old Sacramento State Historic Park (OSSHP). The first Central Pacific locomotive, 4-4-0 *Gov. Stanford*, was unloaded on the waterfront October 6, 1863, and first operated under steam November 9.<sup>55</sup>

By 1864, the first CPRR passenger and freight depots had been constructed along Front Street and regular trains were leaving for the mountains daily, in addition to construction train. The first official timetable, with trains running to Newcastle, went into effect June 6, 1864. The freight station was periodically expanded over the years, and in 1868 the railroad constructed a new, larger passenger station with a covered train shed. The 1868 passenger station and the freight station have been reconstructed by the Park, as detailed above. Meanwhile the waterfront was the major point of arrival for nearly all supplies shipped in for the railroad. In 1865 the Central Pacific partners acquired control of the Sacramento Valley RR, and soon the tracks of the two companies were connected at K Street. Old Sacramento was a very busy place.<sup>56</sup>

The Central Pacific tracks initially left the riverfront by running east on I Street. This was a temporary expedient. In 1866, construction started on the permanent mainline, which headed north from Front and I Streets, made a sweeping curve on newly constructed levee through a

<sup>54</sup> *Sacramento Union*, May 8, 1854; *Sacramento Union*, February 12, 1855; *Sacramento Union*, February 22, 1856.

<sup>55</sup> *Sacramento Bee*, January 8, 1863; *Sacramento Union*, January 9, 1863; *Sacramento Union*, Tuesday, October 27, 1863; *Sacramento Union*, October 7, 1863; *Sacramento Bee*, November 9, 1863.

<sup>56</sup> *Sacramento Union*, May 4, 1864; *Sacramento Union*, May 4, 1864; *Sacramento Union*, June 22, 1864; *Sacramento Union*, July 12, 1865; *Sacramento Union*, August 27, 1867; *Sacramento Union*, October 2, 1868.

portion of Sutter Lake (also known as China Slough), and reconnected with the line out of town at 7<sup>th</sup> and D Streets. Trains switched over to the new mainline on February 27, 1867.<sup>57</sup>

The lands of Sutter Lake had been deeded to the Central Pacific in 1862 by both City ordinance and State Legislative act. In 1867 the railroad started filling in the land as the site for its new permanent main locomotive and car shops. Plans for the shops were drawn up by the firm of Woolaver & Wilkinson, both of whom subsequently became Central Pacific employees. The first structure completed was the Roundhouse, placed in service in December 1868. The Planing Mill & Car Shop and the Erecting & Machine Shop were both completed in early 1869.<sup>58</sup> Many more buildings followed over the years.

On May 10, 1869, the Central Pacific met the Union Pacific at Promontory, Utah, to complete the first Transcontinental Railroad line. Linked by telegraph for instant work of the completion, the meeting set off celebrations from coast to coast across the nation. Leland Stanford's special train to the ceremonies left from the Sacramento Depot on Front Street, several days before the event. Sacramento's celebration on May 10 was also focused at the depot, with bells ringing and the locomotive *Gov. Stanford* blowing its whistle continuously. Celebrations had actually started on May 8, the date the connection was supposed to have been made.<sup>59</sup>

With the East connected, attention turned to a through track to the San Francisco Bay Area. The connection was made over the Sacramento Valley RR tracks south from Front and K Streets, east out R Street to Brighton, and then south on the (19<sup>th</sup> century) Western Pacific through Stockton, over Altamont Pass, and on to Alameda and Oakland (with a ferry ride to San Francisco). This line was completed in November 1869. Mainline railroad traffic between points north and east, connecting with points south and west continued using this trackage along Front Street through Old Sacramento until a bypass was secured via Elvas about 1905.

The Passenger Station remained on Front Street until 1879, when a new much larger station was constructed adjacent to the Shops on land filled from Sutter Lake. Both the old 1860s passenger station and freight station were torn down to make way for a new, larger freight station stretching along Front Street from K Street nearly to I Street. As years went by the area slowly deteriorated into a "skid row". In the 1960s the area that became Old Sacramento was cut off from the rest of the downtown by the construction of Interstate 5. California Department of Parks & Recreation partnered with the City of Sacramento and the Redevelopment Agency in the revitalizing of Old Sacramento. The Eagle Theatre was the first element of OSSHP, opening March 14, 1974. The reconstructed CPRR Passenger Station was the first element of the new CSRM in OSSHP when it opened July 4, 1976.

The Central Pacific Shops, later Southern Pacific Shops, continued to be the number one heavy locomotive repair shop for the entire Southern Pacific system until 1992, when those functions

<sup>57</sup> *Sacramento Union*, October 18, 1866; *Sacramento Union*, February 27, 1867; *Sacramento Bee*, 23 July 1867; *Sacramento Union*, July 31, 1867

<sup>58</sup> "City Ordinance of Sacramento and Act donating Swamp Land", Sacramento, H. S. Crocker & Co., 1862; *Sacramento Union*, March 15, 1867; *Sacramento Union*, August 9, 1867; *Sacramento Union*, December 18, 1868; "Sacramento General Shops", manuscript by D. L. Joslyn, 1948.

<sup>59</sup> *Sacramento Bee*, May 8, 1869

were transferred to the Burnham Shops in Denver, of the recently merged Denver & Rio Grande Railroad. The Erecting Shop, opened in early 1869, expanded in 1873, 1888 and 1905, remained the central focus of all heavy locomotive work until closed in 1992, a record of continuous service likely unmatched by any other railroad locomotive shop in the country. In 1995 Southern Pacific had been acquired by Union Pacific, and the last shop functions were transferred to Roseville and Rocklin in 1999. The Erecting & Machine Shop, the adjacent Boiler Shop, and the turntable (remnant of the old 1868 Roundhouse), transfer table, and firing line are expected to become the new Railroad Technology Museum (RTM) of the CSRM.

The Sacramento Southern Railroad was built by the Southern Pacific, beginning in 1907, to provide direct railroad service to the rich farm lands in southern Sacramento County, located in the Sacramento River Delta region. Prior to that time, Southern Pacific river boats had served the Delta region and had a near monopoly. But in 1905, the Santa Fe Railway, recently built in Northern California, started competing with river boats of their own. Sacramento Southern tracks reached Freeport in 1909, continued past Hood, and after completing a swing bridge as Snodgrass Slough, arrived at Walnut Grove in 1912. The final extension to Isleton was completed in 1929-31.

The Isleton flood of 1971 destroyed the southern end of the line and service was cut back to Walnut Grove. In 1978, the Southern Pacific applied to abandon all but the northern three miles of the branch, and the last SP train ran on October 10<sup>th</sup>. With Southern Pacific cooperation, the CSRM started limited excursion operations in 1982 on the northern 3 miles of the branch (not included in the 1978 abandonment). Regular excursion operations began in 1984. The State of California acquired the northern portion of the branch to Freeport (except the 4 miles acquired by the Sacramento Regional Transit District) in 1985, and the balance of the line to Hood in 1988.

## **D.2 CULTURAL FEATURES & ARCHAEOLOGICAL SITES**

### **D.2.1 OLD SACRAMENTO**

#### **Historic Structures**

##### ***Big Four Building***

Originally located at 52, 54, 56 & 58 K Street (post-1879 numbering 220-226 K Street) on the south side of the street is today a reconstruction at 109 & 111 I Street on the north side of the street in the State History Park. The original K Street location now lies beneath I-5. The Stanford Building and Huntington Hopkins Hardware store, located today on I Street, is a reconstruction of a building that once sat on K Street between Second and Third Streets—an area that now lies beneath I-5.

The structure which was actually three buildings is significant because of its association with Collis P. Huntington, Mark Hopkins, and Leland Stanford. These, with Charles Crocker and

others founded the CPRR, the western link of the first transcontinental railroad. Here were the railroad's headquarters from 1862, until it was relocated to San Francisco in 1873.

### **Stanford Hall**

Leland Stanford's store originally located at 56 and 58 K Street (224-226 K Street after 1879), was built originally by Stanford Bros. in 1852 at a cost of \$7,000.00. 40 x 80 feet, it was one of the few to survive the fire of 1852. Operating a wholesale merchandise store here, Stanford also maintained quarters for the Masonic Lodge on the upper floor. Rebuilt in 1858, later became the office of the CPRR between 1862 and 1873.

### **Huntington & Hopkins Hardware Store**

Originally to the west of the Stanford Store, was the establishment of C.P. Huntington and Co. at 54 K Street (222 K Street). This, a two-story structure, 20 by 100 feet, was built in 1852 after the fire. Established by C.P. Huntington in 1849, this firm was known as the Huntington & Hammond Co. in 1850, C.P. Huntington in 1852, Huntington & Massol & Co. in 1853, and Huntington & Hopkins after 1855. By 1860, Huntington & Hopkins had acquired the 20 by 100 feet building to the west, at what was 52 K Street (220 K Street). This also was built after the fire in 1852, was owned by Richard Chenery and occupied by P.J. Brown & Co. in 1852 and by George B. Gammons & Co. in 1854.

### **Dingley Steam Coffee and Spice Mill**

Located at 15 I Street (115 I Street after 1879), the Star Mills, owned by Nathaniel Dingley, began operation in May, 1850. The present building was constructed in early 1859 after a December 1858 fire destroyed the earlier building. Described in 1880 by Thompson and West:

*"A steam engine is used, and five men are constantly employed in manufacturing; the yearly business being between \$35,000 and \$40,000. The factory is of brick, having two stories and a basement, in size, 25 by 85 feet. The height, of the basement is ten feet, the first story fourteen feet and the second story eleven feet in the clear. An addition, of the same height, and in size 25 feet by 65 feet, is soon to be added to these mills."*

Dingley operated his mill until the 1890s. Beginning about 1860 he had a warehouse at 7 Front Street (907 Front Street after 1879) near the corner of I Street. The enlarged structure of his mill on I Street adjoins the site for the reconstruction of the Big Four Building.

West of Dingley's original mill in 1856 was the Ferry Hotel, at what is now 111 I Street, and Edward Fletcher's laundry at 109 I Street. This is the site of the reconstructed Big Four Building.

### **B.F. Hastings Building**

Located at 30-32 J Street and 34-40 2<sup>nd</sup> Street (1000 & 1002 2<sup>nd</sup> St after 1879), the B.F. Hastings Building that exists today is the very same one that stood during the Gold Rush, the floods, and street improvements of the 1860s. Construction on the building began immediately following

the devastating fire of 1852. The original owner went bankrupt with its construction, providing Gold Rush banker B.F. Hastings with an opportunity to sweep up this prime real estate on J Street, Sacramento's main commercial artery to the gold fields. Hastings finished the building in 1853 and quickly opened it up to some very high-profile tenants.

Wells Fargo & Co. opened an office in the Hastings building in 1854. They moved to the nearby former Adams Express building in November 1857. The B.F. Hastings Building was the Western terminus for the Pony Express during its first 12 months in business between April 1860 and March 1861. For its last eight months until its end in October 1861, the Wells Fargo office down the street served the Pony Express. Before the telegraph put it out of business, the Pony Express reduced the amount of time it took to send mail across the country from four months to ten days. The basement level, under the sidewalk, is the original street level used by the intrepid riders as they began or ended their journeys.

In 1853, Sacramento was the telegraph hub for northern California. The Alta California Telegraph Company opened an office in the B.F. Hastings Building in 1858, occupying the former Wells Fargo space. The California State Telegraph Company absorbed the Alta Company in 1860 but kept the Hastings Building office. By 1861 telegraph lines based out of the B.F. Hastings Building connected Sacramento to Salt Lake City and soon after, the rest of the country. In the evening of October 24, 1861, California Supreme Court Chief Justice Stephen J. Field (later the longest service US Supreme Court Justice until William O. Douglas) sent the nation's very first transcontinental telegraph message over the lines of the California State company to President Lincoln, assuring him of California's loyalty to the Union in the Civil War. The telegraph company moved to new quarters in 1853.

In 1854, Sacramento secured the title of State Capital after successfully luring the State Legislature to the city with its newly-completed courthouse. Other state offices such as the Supreme Court and State Library had to find office space throughout the business district. The Supreme Court re-located to Sacramento in 1855 and moved into the B.F. Hastings Building and the State Library soon followed. Both left about 1869 for chambers in the newly completed State Capitol.

The B.F. Hastings Building also housed the Sacramento Valley Railroad office of Theodore Judah, the engineer behind the Sacramento Valley Railroad, the CPRR. The railroad offices departed in early 1855 to make room for the Supreme Court.

The B.F. Hastings Bank occupied the corner space on the ground floor, today occupied by the Wells Fargo Museum, from 1853 until Hastings bankruptcy in 1871. He was a wealthy, powerful Sacramento tenant and business owner who held a lot of sway with the Board of Trustees. In fact, when property owners on his block petitioned the Board of Trustees to allow street improvements to begin in 1863, Hastings' lone objection was enough to shut the project down for a time. It was not until 1865, when Hastings was prepared to put his support and money behind the project, that his block, all the way down to the Union Hotel, was raised. Joel Johnson raised the B.F. Hastings building using jack screws. The basement level of the structure, its one-

time, original level, has been reinforced for structural safety. The B.F. Hastings Building was the second element of OSSHP to open to the public in 1976.

## **Historic Reconstructions**

### ***Central Pacific Railroad Passenger Station***

Located on the west side of Front Street, extending north from J Street for about half a block, the CPRR Passenger Station in OSSHP is a historical reconstruction of the original station that served the Central Pacific at that location between 1868 and 1879. It was a Bicentennial Project, completed in early 1976 as the first element of the new CSRM, and the target reconstruction date was as the station appeared in 1876.

The first Central Pacific Depot in Sacramento was a small structure built in 1864, located near the 1868 structure, and perhaps incorporated into it. Construction began in 1867 on the larger structure, which included a train shed attached to the depot facilities. It was completed in 1868, but periodically underwent continued modifications as additional facilities were included in it.

In operation it appears to have only contained two tracks inside the train shed; the western one stub ending at the south end of the shed; and the eastern one running through, exiting the south end of the station and traveling along the edge of Front Street on the east side (street side) of the CPRR Freight Depot before curving back to the mainline south of the Steam Navigation shed. A third track east of the through track appears to have stub ended adjacent to the added covering on the north end of the station. As reconstructed the station has three tracks running its full length, and stub ending at the south end of the depot.

In 1878, the railroad initiated plans for a new mainline to reach Oakland, including a train ferry ride across the Carquinez Straits. A new and much larger passenger station in a different location, lined to serve the railroad bridge across the Sacramento River, was placed in operation in 1879. In early 1880, the 1868 station was torn down (along with the CPRR Freight Depot, see below), and a new much larger freight station was constructed on the site. This freight station burned in 1972. The site of the 1880 freight depot was cleared, with the northern half becoming the site for the reconstructed 1868 CPRR Passenger Station, and the southern portion initially becoming a parking lot, and later the site for the reconstructed CPRR Freight Depot (see below).

### ***Central Pacific Railroad Freight Depot***

Located on the west side of Front Street between J and K Streets, the southern part of the CPRR Freight Depot was constructed in 1864. A narrower extension to the north was added later, probably in 1868 when the larger passenger station was built (see above). After 1868, the mainline passenger track extended along the edge of Front street, running between the street and the freight depot.

As related above, the 1864/68 CPRR Freight Depot was torn down in 1880 and replaced with a new, much larger structure. The newer structure burned in 1972.

In 1986, the CPRR Freight Depot, as it stood between 1868 and 1880, was reconstructed by State Parks, and became the center of the operation of the Museum's Sacramento Southern excursion railroad operation. In 1996-1997, the Freight Depot was modified by the addition of the Old Sacramento Public Market, which significantly changed its historic architecture. State Parks intends to return the building to its historic 1868-1880 appearance.

### ***Tehama Building***

Located at the northwest corner of Front and J Streets—the Tehama Block, constructed by S.C. Bruce in the summer, of 1851, of brick, occupied the site of the 1849 frame building of S. Taylor and Company. The Tehama Block was among the brick structures which survived the fire of 1852. Two-stories, it measured 40 by 80 feet. Occupied on Front Street, in 1852, by Hall & Brown, it was also the headquarters of Page-Bacon & Company beginning September 1851. During that time it also housed district and county courts and various county offices. J.C. Carolan and Company, hardware merchants, succeeded Page-Bacon & Co. at 1 to 3 J Street from 1853 to 1870. F.F. Washington, attorney, also had his office there in 1856. A brick extension was added to the north side of the building about 1858.

East of Carolan, in 1856, on one of the 1849 sites of the Round Tent was the firm of Shaw and Jones, wholesale merchants, at 5-7 J Street. This was also occupied during the late 1860s by the hotel of Lorinda Washburn. In 1871, Maharry and Whitten's Central Pacific Railway saloon was located at 7 J Street.

The Tehama block was demolished in the 1960s and the 1849 wood structure rebuilt by State Parks in 1990.

### ***Eagle Theater***

The Eagle Theatre, a temporary canvas and board structure, and the first structure in California to actually be built as a theater, was completed early in September 1849 by Hubbard, Brown and Co. Its first performance on September 15 presented the Stockton Minstrels. Regular theatricals, under the management of C.B. Price, began on October 18 with the "*Bandit Chief*" and "*Love in Humble Life*."

The Eagle closed for a brief period early in November, apparently because of financial difficulties which resulted in lawsuits. The playhouse reopened shortly thereafter with the play "*The Tragedy of Douglas*" under the direction of James Atwater. The theater closed permanently on January 4, 1850, as a result of the floods of that date. Atwater moved his company to San Francisco, but returned to Sacramento in March 1850 to establish a theater on the east side of Second Street between I and J Streets.

Various accounts and illustrations depict the Eagle Theater. Cooper's lithograph of 1849 portrays it as facing Front Street with its Round Tent annex on J Street. The 1849 lithograph by McIlvaine shows it at the same location but with the tent on Front Street beside the theater. The January 1850 Flood lithograph of the city indicates that the Eagle Theater was on Front Street at the time of the flood and that the tent served as a foyer is located on front at the entrance to the theater.

The *Sacramento City Directory of 1856* describes the Eagle as having been 30 by 65 feet with a roof covered with sheet iron and tin, sides of canvas, and a stage 16 feet in depth. This matches with the 1850 flood lithograph and positions the Round Tent—used as the entrance, saloon and place of gambling—to be an estimated 30 by 20 feet, and the theater are 35 by 45 feet. Reconstructed in 1974 as the first element of OSSHP, it opened with a performance on March 14, 1974.

### ***Connecticut Mining & Trading Company / McDowell Building***

Adjacent and to the north of the Eagle Theatre were two frame and canvas structures occupied by McDowell and Co. in 1849. The firm at first operated under the name Crowell and McDowell, but by May 1850, it had become Crowell, Dudley and McDowell. The property was the south portion of Lot No. 3, owned by W.D.M. Howard. Space was also leased to several tenants, including the Connecticut Mining & Trading (CM&T) Co.

The construction and dimensions of the two structures can only be estimated as they are depicted differently in the McIlvaine, Cooper and 1850 flood lithographs. However, the 1850 lithograph appears to be the most accurate. Using this as a reference, the north structure appeared to be about 15 by 30 feet and the south one 15 by 55 feet. These structures burned in the fire of November 2-3, 1852, and subsequently were replaced in the mid-1850s by a brick building ultimately owned by the Baker and Hamilton Company. The 1849 structure was reconstructed by State Parks in 1983.

## **Archaeological Resources**

### ***Central Pacific Trestle in CSRM parking lot***

In October 2008, portions of an early Central Pacific trestle came to light in the back parking lot of the CSRM during a grading project. Overlaying historic maps showed that the trestle was on the original alignment of the Central Pacific mainline that was extended through Sutter Lake in 1866. Other similar trestle remains have been observed at several other locations along that mainline route, specifically at the site of the 7<sup>th</sup> Street undercrossing of the Union Pacific Railroad, and in the excavations of the remediation of toxics by Thomas Enterprises that cut

into the old mainline northwest of the Boiler Shop in the old Southern Pacific Shops complex. An archaeological report was prepared on the 7<sup>th</sup> Street excavations.<sup>60</sup>

A common method for railroads historically to build raised grades and levees is to first build a trestle, and then fill the trestle with dirt dumped from railroad cars. It appears that all the above trestle features date from the 1866 construction of the Central Pacific mainline through a portion of Sutter Lake.

### ***Footings and sites in 1849 Scene***

There were a number of preliminary archaeological studies completed by the State Parks, relating to the half block area bounded by Front, I, and J Streets, and Commonwealth Alley. This area has been commonly referred to as the 1849 Scene, because in the original development plans for this area, it was intended to be reconstructed to represent the structures that stood there in the period between 1848 and the fire of 1852.

At the time of development in the 1970s, the existing buildings were removed (mostly leaving their cellars and cellar walls), and the whole area was covered with fill dirt to “preserve” what archaeological remains were on the site.

## **D.2.2 CENTRAL PACIFIC/SOUTHERN PACIFIC SHOPS – RAILROAD TECHNOLOGY MUSEUM**

### **Historic Structures**

#### ***Erecting & Machine Shop***

The Erecting and Machine Shop contains the oldest standing structure remaining in the Southern Pacific Sacramento Shops Complex (Central Shops Historic District). The initial portion was one of the first permanent structures built by the CPRR on the Central Shops site, and was completed in early 1869, before the completion of the Pacific Railroad and driving of the Golden Spike at Promontory, Utah on May 10, 1869. The Erecting & Machine Shop served as the primary location for Central Pacific heavy rebuilding, and new construction, so locomotives, initially for the Central Pacific and later for the Southern Pacific Railroad. It remained the primary heavy rebuild shop from 1869 until 1992, undoubtedly a record for continuous use of a building in such a function on any railroad in the US. The building itself was extended about 1873, and again in 1888; while in 1905, an entire new addition was “glued” onto its west face to provide a larger erecting hall. The building has changed very little since 1905. Since 2000, the CSRM has used the building for storage of railroad equipment and parts. It is intended that this building will become the location for the more formal exhibit area of the RTM.

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<sup>60</sup> Tremaine, Kim, and Wendy J Nelson: *final Report of Archaeological Testing and Monitoring for the City of Sacramento’s 7<sup>th</sup> Street Extension Project, Sacramento, California*. Prepared for Department of Public Works, City of Sacramento. Sacramento: Tremaine & Associates, Inc., February 2006, particularly pp 35-37, 47-48.

## ***Boiler Shop***

The Boiler Shop (technically the 2<sup>nd</sup> Boiler Shop) was built in 1888, and was the site not only of major boiler construction and repair, but also for tender and steel locomotive cab construction. It underwent a major modification, around 1916, when the entire center portion was ripped out and a new structure constructed in its place, including an overhead crane. With the end of steam locomotive work, the building was repurposed for diesel locomotives as a Locomotive Truck Shop and a Fabrication Shop. A large Whiting Drop Table was added onto a single stall extension at the north end of the Boiler Shop in the 1970s. The last railroad operations moved out of the building in 1999, and the CSRM moved its Restoration Shop there in 2000. As part of the RTM it will continue as the Restoration Shop, with the addition of visitor access.

## ***Turntable***

The original turntable in this location, a 55-foot Sellers cast iron turntable, was installed as part of the Roundhouse construction in 1868. It was replaced with a 75-foot steel girder turntable in 1895. The current 100-foot turntable, nearly twice the length of the original, was installed in 1943. It will be operable as part of the RTM.

## ***Transfer Table – In Ground Portion***

The original Transfer Table was installed in 1888, running between the Erecting & Machine Shop and the 2<sup>nd</sup> Boiler Shop, and partly covering the site of the 1<sup>st</sup> Boiler Shop. The current Transfer Table was installed about 1905, built to an innovative patented design that eliminated the deep pit that characterizes most Transfer Tables. This facilitated foot traffic between the Erecting & Machine Shop and the Boiler Shop. The table was extended during the 2<sup>nd</sup> World War to its current 70-foot length. In 1992, after the heavy locomotive repairs were moved out of the Erecting & Machine shop, the old Transfer Table structure was cut up for scrap in 1995, but the in-ground portions remained in place. These have been renovated by the CSRM for the new reconstructed Transfer Table (see below).

## ***Historic Reconstructions***

### ***Railroad History Museum Transfer Table – Moving Portion***

Between 2001 and 2003, the CSRM built a new transfer table structure for installation in the historic track structure (see above). The design of the new structure followed the lines of the historic scrapped structure. The new Transfer Table was installed and dedicated on May 28, 2003, and has been in operation since then.

## ***Archaeological Resources***

### ***Footings for Roundhouse***

The footings for the southwest corner of the Roundhouse are visible just north of the Boiler shop. The roundhouse, constructed in 1868, was torn down in 1959.

### ***Footings for Other Structures***

Other footings of building are visible west of the Boiler Shop. These are for buildings constructed in the 1920s and in the 1960s. Older footings are likely underground.

### **Historic Structures**

#### ***Sacramento Southern Railroad—Old Sacramento to Hood***

The railroad right-of-way, owned by California State Parks, and managed by the CSRM, runs from a connection with the Union Pacific Railroad near OSSHP, south to the small riverside town of Hood, a distance of over 16 miles (this includes approximately 4 miles currently owned by Regional Transit, which separates the northern and southern properties owned by Parks). From milepost (MP) 0.0 to MP 3.0, the road parallels the Sacramento River. From this point it passes into a heavily residential area for approximately 4.5 miles (this includes the Regional Transit portion), to the town of Freeport at MP 8.5, where it again joins the Sacramento River, and parallels it to MP 10.1. From this point, it heads inland on secondary levees to Hood-Franklin Road, MP 15.5, and crosses to Hood Junction, and then on into Hood.

At present the Sacramento Southern Railroad excursion train operates on the northern three miles of track, to Baths, where the track leaves the Sacramento River. For the first 1.3 miles, the line passes through developed properties which include restaurants, shops and a hotel. The line then moves through developed parkland, which includes a bicycle and pedestrian path, river viewing points, benches and landscaped areas. South of this area, the line enters an area of gasoline tank farms. At MP 2.1 the line again reaches the Sacramento River on the West, but on the East parallels Interstate 5, until Baths, at MP 3.0, the terminus of the excursion train run.

From this point, the railroad passes through developed residential areas until it crosses Meadowview Road. At MP 8.5, the delta town of Freeport and the Sacramento River are reached. It is at this point that interpretive possibilities begin to present themselves. The orchards and other agricultural lands permit the explanation of the importance of agriculture to the Delta region, and the reason that the Walnut Grove branch line, which is the line of the Sacramento Southern Railroad, was established.

At Cliff's Marina, MP 10.1, and for the next five and one-half miles the line passes through stands of native vegetation, rich in wildlife. The Beach Lakes, and further South, the Stone Lakes wildlife refuges preserve natural areas close to a major city, permitting the citizens of Sacramento the chance to experience nature with little effort. The railroad, which runs alongside the refuges, offers the best option for viewing the natural world preserved here.

## D.3 HISTORIC LANDSCAPE AND CULTURAL LANDSCAPE FEATURES

Sacramento is located in the northern portion of the vast Central Valley that runs 450 miles through the heart of the Golden State. The valley was one part of the ocean floor, and in its prehistoric period, four great mountain ranges emerged—the Sierra Nevada to the east, the Klamath and the Cascades to the north, and the Coastal range to the west. These mountains surrounded a huge depression into which they poured waters, sand, gravel, and other sediment. Eventually, this “inland sea” receded, some believe by bursting through the Coastal Range at Carquinez, leaving behind a valley containing volcanic rock and alluvial fans, the latter from the washed rock of the Coastal Range, but the valley’s key characteristic is its flatness.

*“The physical geography of the valley has been a continuous factor in valley history. Transportation, settlement, irrigation, reclamation, floods and agriculture have all reflected this physical environment, especially the presence of the rivers.”*

-Historian Joseph McGowen

The Sacramento River begins on the southern slopes of the Klamath and provides the central waterway for the valley. Into it, flow tributary streams fed from snow-capped mountains to the east. To the south, the waters of the Cosumnes and American Rivers also run into the Sacramento. Dozens of smaller streams with names like Antelope, Deer, Mill, and Butte enter the Sacramento as well. These waterways bring a rich diversity of soils and dump them on the ground in alluvial fans, providing the basis for the rich agriculture of the valley, an important ingredient in Sacramento’s economic stability.

The City of Sacramento’s destiny is shaped by its strategic location at the confluence of the Sacramento and American Rivers. Because of its location, in 1849, it became the “Gateway to the Gold Fields” as a convenient drop-off point for miners and a place where they returned for supplies and recreation. Later, agricultural riches of the valley were “mined” and processed by enterprising Sacramentans. Venture capitalists underwrote these endeavors and evolving transportation systems conveyed them to markets all over the nation and the world.

Sacramento is most widely known for the flatness of its landscape. The city can be oppressively hot during the summer but, thanks to the oceanic breezes that come up through the Sacramento Delta, often pleasantly cool enough in the evenings. Winters are often damp and rainy with daytime temperatures hovering in the 50s and 60s, while nights sometime plunge to the 40s and 30s. Snow and Freezing rain are unusual, but on rare occasions Sacramento has been blanketed in winter white. Precipitation varies from year to year. Some years, the rains barely soak the soil. Other years, the heavens open in such a deluge that fears of flooding is real.

Archaeologists describe the valley’s prehistory as a place inhabited by ancient prehistoric creatures: mastodons, horses, camels, ferocious saber-toothed tigers, huge bears, and fearless

wolves. Flocks of waterfowl filled the skies. Fish, like sturgeon and salmon were found in abundance while large herds of elk, deer, and antelope roamed at will. Giant oaks, sycamores, cottonwoods, willows, and ash once grew in abundance, tulles choked the riverbanks, and open patches of heavy grass flourished in flat areas. The mountains surrounding the valley meant that it was isolated from the rest of the world. Indeed, because it was so remote, population grew slowly in Sacramento and in California's interior in general for many years.

### ***Artifacts Original to the Site***

The most significant and important artifacts original to the site are the original buildings that are still standing, as detailed above. In the numerous archaeological studies that have been conducted in Old Sacramento, and more specifically on State Parks property, there have been many small artifacts discovered and preserved. These are detailed in the various reports completed on the different studies. The Park has also acquired various artifacts that have association with the sites, notably including the very first Central Pacific locomotive which arrived on the waterfront in 1863, and a locomotive actually constructed in the Central Pacific Erecting Shop in 1882.

### **Collections**

The extent to which individual units within OSSHP actively acquire, exhibit, store, and conduct related activities (cataloging, loans, transfers, etc.) varies. Units with a high level of collections management responsibility are:

- CSRM Railroad History Museum
- CSRM Historic Southern Pacific Shops Complex
- Big Four Building
- B.F. Hastings Building

The following units have a lesser degree of collections management responsibilities:

- CSRM CPRR Passenger Station
- Eagle Theatre

### ***California State Railroad Museum, Railroad History Museum***

The CSRM has the largest collection, in terms of the number of annual acquisitions, the quantity of material received and processed according to professional standards, as well as the amount of state resources (designated funding, staff, and space) allocated for collections management. In fact, collecting is specifically and prominently referred to in the Museum's mission statement: "The mission of the CSRM is to collect, preserve, study, exhibit, and interpret selected aspects of railroads and railroading, with an emphasis on California and the West, for the education, enjoyment and entertainment of the widest possible audience" (approved January 1997).

The nucleus of the Museum's collection dates from 1969, when William Penn Mott, Jr., then Director of State Parks, accepted donation of fifteen steam locomotives and cars from the Pacific Coast Chapter of the Railway and Locomotive Historical Society. On July 8, 1937, a group of dedicated historians from the San Francisco Bay Area had formed a chapter of this national organization established in 1921. The Chapter focused its interests on preserving the historical locomotives and cars still extant in the West. Its first acquisition was the 1875 Baldwin Locomotive Works woodburner Virginia and Truckee No. 21, J.W. Bowker. Over the next three decades, the Chapter acquired more than three dozen vintage locomotives and cars. In addition to saving this equipment from vandals and scrappers, the Chapter sought to exhibit and interpret the collection to the public. Original plans called for a museum in San Francisco, but when this endeavor proved unsuccessful, a group of Sacramentans stepped forward with the idea of establishing the museum in the capital city. Negotiations with the Department of Parks and Recreation, in the late 1960s, resulted in a decision to locate the museum in OSSHP. Other key participants who contributed to the success of the project were the Sacramento Historic Landmarks Commission, the Sacramento Redevelopment Agency and the Sacramento Trust for Historic Preservation.

In 1970, the Sacramento Trust and the Chapter held a dinner on board the *Gold Coast* (now on permanent exhibit at the Railroad History Museum) to host Governor and Mrs. Ronald Reagan. The car, once owned by famed authors Lucius Beebe and Charles Clegg, was parked on a siding near the site of the proposed museum. Governor Reagan expressed his support of the project and a short time later put his words into action by signing a bill authorizing establishment of a railroad museum in Old Sacramento.

The Sacramento Trust continued to be actively involved the museum project. In 1972 the Trust published its recommendations for planning and development of the CSRM. This document clearly defined the goals and purpose of the museum: "to interpret for the public and historian alike in a way different from most other railroad museums the railroad as it affected the westward movement and the development of California." The museum would achieve this goal with "well-organized imaginative and creative arrangements of well-interpreted three-dimensional display of railroad artifacts, documents and memorabilia." Collections were key to the museum's success. A thoughtfully assembled collection would contribute to the development of exhibits and interpretive programs as well as support the research needs of staff and public.

A modest legislative, appropriated the next year, supported the preparation of a master plan that called for a complex of reconstructed buildings and new facilities in Old Sacramento. In these, would be housed a railroad history museum, a railroad technology museum, a research library, exhibit galleries, house museum spaces, meeting facilities, and much more. The museum's 1973 "Master Plan" also supported the acquisition of collections to support interpretive themes.

A State Parks bond act, approved by the voters in 1974, provided the initial financing. The first phase was the reconstruction of the 1867 CPRR Passenger Station on Front Street. Undertaken

as an American Revolution Bicentennial project, the building opened on July 4, 1976 (dedicated September 25, 1976) as a house museum facility, depicting Sacramento's first formal train station as it appeared in 1876.

Planning for the RHM started late in 1976. Ground was broken for the museum on April 21, 1978. By early 1980, the building had taken on the form we recognize today. One of the most remarkable aspects of the project involved the restoration of 21 pieces of full-size railroad equipment for exhibition. This program, the most extensive activity of its type ever undertaken, began in earnest in February 1977 and continued through June 1981, financed largely by Federal grants. The first of the restored pieces—a three-car narrow gauge freight train—was installed above the roundhouse at the end of August 1980.

Running parallel to the restoration efforts was an equally focused program to acquire small three-dimensional artifacts and documents to support the development of exhibits in the near term and the creation of permanent study collection for the long term. Although the Department's statewide collections included a few pieces related to California's railroad history (locks, tools, photographs, locomotive and passenger car accessories, etc.), there were most certainly not enough to populate an entire museum.

Nor were the few artifacts located on site (such as pieces of rail, spikes, china shards, bottles) from archeological excavations or amateur finds, of sufficient number or fine enough condition for display. Building the museum's collection began in earnest. With an emphasis on California and the West, the museum began to collect artifacts which supported the primary interpretive themes established in the master plan, interpretive prospectus and other planning documents:

- Sacramento Valley Railroad
- Theodore D. Judah
- The Big Four
- The Transcontinental Railroad
- The People who Built the Railroad
- The Golden Age of Railroading
- Railroads and the West
- Railroad Architecture
- Railroad Building Feats and Technology
- Railroads and Land
- Railroads and Politics
- Railroad Gauges
- People and the Railroads
- Railroad Labor
- Railroads and Unions
- Railroads and Agriculture
- The Passenger Car
- Passenger Travel
- Name Passenger Trains
- Business and Private Cars
- The Freight Car
- Railroad Freight
- Railroads and Industry
- Railroads and Lumbering
- Railroads and Folklore
- Railroads and the Circus
- Railroads and Hollywood
- The Hobo
- Railroads and War
- Railroad Navies
- Standard Time
- The Roundhouse and Shops
- Dinner in the Diner
- Railway Mail
- The Sleeping Car
- How a Steam locomotive Operates
- The Diesel Locomotive
- Railroad Myth and Symbol

- Toy Trains and Scale Modeling
- The Railroads in Sacramento
- Railroads of California and the West
- Locomotives: Size and Power
- Cars
- Carrying Capacity
- Railroad Systems and Technology
- Alternate Railway Technologies
- Restoration and Preservation

Thousands of brochures were distributed to encourage railroadian collectors to donate artifacts and documents to the new CSRM. In addition, \$225,000 was appropriated from State Parks Bonds funds to purchase specific artifacts. In 1977, the State of California leased two collections storage facilities in an industrial park in West Sacramento, about four miles from Old Sacramento. One is still in use today; the other was occupied until the mid-1990s; then, moved to the current site which is only a few doors down from 1970s location. These facilities were used for the storage of collections. Up to six employees were assigned to process and catalog incoming collections, ranging in size from a single artifact to hundreds of boxes comprising the private collections of noted railroad enthusiasts. One facility was also used to house full-size equipment either pending restoration, or fully-restored and awaiting transfer to the Railroad History Museum.

On May 2, 1981, the RHM, a 100,000- square foot building featuring multi-media presentations, two theaters, twenty-one meticulously restored locomotives and cars, and more than forty interpretive exhibits, opened amid the celebrations of Railfair Sacramento 1981.

Refining the collection continues to this day. Staff is guided by the “Scope of Collections Statement” (approved 1998), which classifies the Museum’s three principal collecting areas: (1) documentary collections, (2) three-dimensional artifact collections and (3) full-size locomotives and car collections and details the types of materials within each area.

The focus of the documentary collections, managed by the CSRM Library, is the history of railroads and railroading in California and the adjacent states from the 1850s to the present. Collections cover selected railroad topics throughout North America, including Canada, Mexico and Central America. Emphasis is on acquiring materials relating to the social, economic, political, cultural, technological, and environmental impact that the industry has had and continues to have on the region.

The small three-dimensional artifact collection consists of objects from railroads, railroading, railroad history and technology, from circa 1830 to the present, with an emphasis on California and the West. These artifacts have been evaluated by the Smithsonian Institution’s former Curator of Transportation, John H. White, Jr., as the largest and finest publicly held collection of three dimensional railroad objects in North America. The 2001 donation of the Thomas W. Sefton Collection has given the Museum the pre-eminent publicly-held collections of toy trains and Buddy “L” toys extant in North America.

While detailed information about the Museum’s collection is available in various formats (accession records, catalog records, photographs, etc.), listing the primary categories of small

three-dimensional artifacts and documentary materials that form the CSRM's permanent collection provides some idea of its considerable breadth and depth.

### ***Three-Dimensional Artifacts***

- Advertising souvenirs
- Architectural elements
- Artwork (paintings, prints, sculpture)
- Badges and emblem pins
- Baggage and brass checks
- Brotherhood and union items
- Builder's plates
- Buttons and pins
- Cans, torches and metalware
- China
- Clocks and watches
- Gauges
- Desk ornaments and accessories
- Glassware
- Hats and cap badges
- Headlights
- Horns and whistles
- Lanterns and lamps
- Linens (bed and table)
- Locks and keys
- Locomotive appliances
- Luggage stickers and decals
- Medallions, medals and tokens
- Oilers, torches and tallow pots
- Paper napkins and placemats
- Patent models
- Patterns
- Playing cards
- Punches
- Rail samples
- Rolling stock accessories
- Scale models
- Signals
- Signs
- Silver flatware and hollowware
- Smoking accessories
- Souvenir items
- Stamps and validators
- Telephones and telegraphic equipment
- Tools, shop and track
- Toy trains
- Toys and games
- Track materials
- Uniforms
- Watches and clocks
- Wax sealers

## ***Documentary Collections***

- Annual reports
- Architectural drawings
- Blotters
- Books
- Brotherhood and union publications
- Business cards
- Calendars
- Corporate business records
- Engineering drawings
- Forms
- Government documents
- Magazines
- Manuscripts
- Maps
- Membership cards
- Menus
- Motion picture films
- Paintings, graphic arts and other artwork
- Passes
- Patents
- Personal papers and correspondence
- Photographic prints and negatives
- Postcards
- Posters
- Railfan club publications
- Railroad association publications
- Rule books
- Sheet music
- Sound recordings
- Stationery
- Stocks and bonds
- Surveyor's notebooks
- Tariffs
- Tickets
- Timetables
- Tourist guides and travel brochures
- Trade catalogs
- Videocassettes and DVDs

The third major collecting area of the Museum is the full-size historic railroad equipment collection, consisting of 82 locomotives and cars dating from 1862 to 1979. Many of the museum's locomotives and cars are the sole surviving and/or best examples in North America. The collection includes 20 steam locomotives dating from 1862 to 1944, including eight built before 1885, and 14 internal combustion locomotives dating from 1928 to 1979. 18 passenger cars span the period from 1874 to 1962. 27 freight and 30 maintenance-of-way cars and cabooses date from 1891 to 1977 and include box, flat and tank cars, cranes, scale test cars, tool and outfit cars, flangers, a dynamometer, snow plows, track geometry cars, and even a Ford Model A fire truck on railroad wheels.

Today it is no longer necessary to advertise to attract donations. Since 1981, the CSRM has accessioned over 2,600 donations, ranging in size from a folder of cherished family photographs to hundreds of cartons. The museum's fine reputation ensures that collectors of railroad artifacts and documents, as well as the corporate entities and institutions, associated with all aspects of railroad history (railroads, manufacturers, unions, as well as railfan clubs and industry associations) consider the CSRM the appropriate repository for the long-term preservation of historic collections. The museum has received the gift of significant railroad collections from the Bancroft Library, the Smithsonian Institution, Southern Pacific, Western Pacific, Union Pacific, and the Atchison, Topeka and Santa Fe railroads. Many railroaders and

private collectors have made generous donations. The museum also purchases materials with funds provided by the CSRM Foundation.

### ***CSRM: Historic Southern Pacific Sacramento Shops Complex***

Located adjacent to downtown Sacramento, the Southern Pacific Sacramento Shops complex is one of North America's most important industrial heritage sites. Proposed on this site, is the Railroad Technology Museum, a major expansion of the CSRM. In late 1999, the museum secured a lease from the Union Pacific Railroad on the complex's two main structures, the Boiler Shop and the Erecting Shop. These cavernous structures date from the days when steam locomotives were built and repaired on site. Portions of the massive brick Erecting Shop are dated from 1869, when the building was constructed and operated by the Southern Pacific's predecessor company, the CPRR. As such, the Shops include the only surviving Central Pacific structures standing when America's first transcontinental railroad was completed.

Ongoing maintenance of the museum's operating steam and diesel locomotives takes place in the Boiler Shop, as do repairs and maintenance for the museum's coaches and converted freight cars. The necessary support systems for the museum's operating railroad, the Sacramento Southern - track materials, specialized machinery, and crossing signals - are built and maintained here as well. Restoration and conservation projects are also conducted in the Boiler Shop, attesting to the Shop's ability to provide skills and tooling for a variety of activities.

The adjacent Erecting Shop houses additional pieces from the museum's collection of historic railroad and cars. Stored outside for years, these historic items are a priority for restoration. Many will become exhibits within the RTM, to showcase over a century of technological development and innovation in the railroad industry.

### ***Big Four Building***

The Big Four Building is a reconstruction of two structures, the Huntington & Hopkins Company Hardware Store and the Stanford Hall. The original structure, actually three separate buildings with common walls, dates from the 1850's, and was located on the south side of K Street between Second and Third Streets. Collis P. Huntington and Mark Hopkins (two of the "Big Four" who built the CPRR, Leland Stanford and Charles Crocker being the other two) opened a hardware store in 1855 and continued in business at this site until 1891, when the company dissolved.

The Department, as part of the State of California's contribution to the revival of Old Sacramento, rebuilt the Big Four Building at its current location, 111 I Street adjacent to the Nathaniel Dingley Spice Mill. Ground-breaking ceremonies were held April 25, 1969; the building was completed in 1971. Although more than a million original bricks from the original K Street structure were used for the reconstruction, only a few of the nineteenth-century structural elements have survived: millwork on the front doors, some of the cast iron façade, a stair banister and a few interior columns. The exterior was designed to resemble its appearance between 1862 and 1873, when the CPRR offices occupied the second floor. Little specific

information about the interior of the building has survived. Collections are exhibited and stored and in several areas of the Big Four Building.

### ***Big Four Building: Huntington, Hopkins & Company Hardware Store***

The Hardware Store occupies the eastern section of the ground floor. The interior of the Hardware Store is typical of a mid-nineteenth century establishment, which sold tools, hardware, building supplies, kitchen implements, and other goods. Original artifacts and replicas are on display in open bins and in exhibit cases. A small selection of books and reproductions of nineteenth-century merchandise is available for sale.

The western section of the ground floor is the Stanford Gallery, a multi-use space and changing exhibit gallery.

### ***Big Four Building: Second Floor and Basement***

The second floor houses the administrative offices for the Capital District State Museums and Historic Parks, the CSRM, the CSRM Library, and a meeting room, a representation of the CPRR boardroom. Reproductions of period-appropriate furniture were purchased to furnish this room.

Selected items from the CSRM's permanent collection are displayed throughout the second floor. Artwork includes Sam Hyde Harris' painting of a Southern Pacific "Daylight" train steaming along the California in the hall, two oil portraits of Charles Crocker and his wife Mary, and several rare nineteenth-century lithographs of steam locomotives in the boardroom. Large-scale models of freight cars and ferryboats and two one-of-a-kind live steam locomotives dating from the late 1800s are popular with visitors to the Big Four Building.

The CSRM Library reading room and staff offices occupy the eastern section of the Big Four Building. The most heavily used documentary collections (photographs, books and periodicals, manuscript collections, ephemera) are housed in the public reading room or in closed stacks, which occupy two-thirds of the basement. The basement of the Dingley Spice Mill is connected and integral to the archival basement space of the Big Four Building. More extensive archival collections (primarily corporate records), as well as thousands of technical drawings, are stored in the West Sacramento collections management facilities.

### ***Dingley Steam Coffee and Spice Mill***

Like the B F. Hastings Building (below), the Dingley Spice Mill is original to the site. It was built in early 1859, replacing an earlier building destroyed by fire in December 1858. The Pacific Coast Chapter of the Railway & Locomotive Historical Society operated a gift shop and bookstore on the ground floor of this building from 1981 until March of 1995. While the space has been used as an information center during special events, it is currently closed to the public and used for storage by the Museum Store. Offices for the CSRM Foundation are on the second floor.

### ***B. F. Hastings Building***

Occupants of this building, erected in 1853, have included a bank, clothing merchants, Theodore Dehone Judah's (engineer for the Sacramento Valley and transcontinental railroads) office, telegraph companies, and the California Supreme Court. The B.F. Hastings Building also served as the western terminus of the Pony Express. The B. F. Hastings Building was officially dedicated as a unit of State Parks March 17, 1976, the first unit of OSSHP to open. An exhibit, focusing on various modes of communication in the West, from the Pony Express to the telegraph, occupied the ground floor. Today the Old Sacramento Visitors Center, managed by the Sacramento Convention & Visitors Bureau, shares the ground floor with an exhibit, installed in 2004. On display are 1860s stage coaches, as well as Andrew P. Hill's oil painting, "Crossing the Plains" and numerous artifacts, relating to settling the West and pioneer life.

The several rooms on the second floor were extensively refurbished to appear as they did from 1855 to 1869, when the State Supreme Court was in residence. Office spaces, once occupied by court justices, lawyers, and court clerks, contained furniture and artifacts of the period, from desks, quill pens, and ink bottles to multiple shelves of law books. Over time, water damage, from deteriorating roof and window frames, and other structural issues eventually forced the closure of the second floor. Most artifacts were removed in 1999. The second floor is vacant and devoid of artifacts, except for a few pieces of purchased antique furniture.

A portion of the B. F. Hastings Building, the ground floor corner area that historically was B.F. Hastings' bank, is leased by Wells Fargo Bank and contains a small museum, devoted to Wells Fargo history. A visitor center and historical exhibits and office space for the Capital District occupy the ground floor.

State Parks also maintains a small park opposite the Hastings Building, on the corner of Second and J Streets. To commemorate the contribution of the Pony Express to Sacramento history, on June 4, 1976, the Sophia Comstock Memorial Committee installed Thomas Holland's fifteen-foot high bronze statue of a Pony Express rider. Several National Historical Landmarks, California Historical Landmarks, and other plaques relating to the Pony Express and Old Sacramento, adorn a wall at the east side of the park.

### ***Central Pacific Railroad Passenger Station***

The Passenger Station is a reproduction of the CPRR station built in 1868 and used as the western terminus of the first transcontinental railroad. It served the line until 1879, when the Central Pacific built a new station, just south of the current shops area.

The year 1876 was selected as the interpretive date and the interior furnished as a house museum. In the absence of any historic "site-specific" artifacts, period-appropriate artifacts were purchased to furnish the depot. Historic pieces from other state parks, including Sacramento's Sutter's Fort collection of pioneer and Gold Rush items, were also transferred for exhibit in the Passenger Station. Within station offices, waiting and baggage rooms, furniture, trunks, clocks, railroad lanterns, office and waiting room accessories and framed maps and

broadsides set the scene. One area became a restaurant, the Silver Palace Eating Stand. Several pieces of nineteenth-century railroad equipment, including the J.W. Bowker steam locomotive, noted above, were positioned under the train shed to be readily accessible from the boarding platform.

The popular “Emigrant Train” grade school program uses the main waiting room for orientation. However, with a reduction in District staffing levels, the Passenger Station is generally closed to the public. Rooms have been converted to staff offices and the covered track has been allocated for storage of railroad equipment, used along the Museum’s excursion railroad, the Sacramento Southern. The Passenger Station also serves as the boarding area for the popular Christmas event, the “Polar Express,” which in 2012 is in its fifth season. To preserve the artifacts on display and for security reasons, most artifacts have been removed to collections storage, leaving only a few reproductions and purchased antiques as furnishings.

### ***Eagle Theatre***

The original Eagle Theatre, a wood frame and canvas structure, with a tin roof, provided entertainment to Sacramentans for a mere three months (September 1849 thru January 1850). Its reconstruction was completed in 1974. Although several lithographs and written accounts provide descriptions of how the theater’s exterior underwent changes during its short existence, no interior description of the saloon, which was added to the front of the theater, sometime in September or early October of 1849, has been discovered. The current bar came from a Gold Rush saloon in Bear Valley (Mariposa County). It typifies bars of the time, with its turned columns and landscape panels. The back bar, at one time, displayed bottles and glassware, similar to those excavated at the site. The Eagle is open only a few hours each week, during which docents introduce a multi-media slide presentation on Sacramento history. Except for a few pieces of purchased antiques and a recently acquired vintage upright piano for use by visiting production companies, the Eagle lobby has been emptied of artifacts.

### ***Other Park Facilities***

The CPRR Freight Depot was reconstructed in 1986. Originally used as the passenger station, for the CSRM’s excursion train, the Sacramento Southern, it was converted to a public market. Several of the units, once occupied by restaurants and food vendors (in 2012) are vacant. Plans are underway to return the Freight Depot to its original intent as an interpretive venue, focusing on the story of freight transportation and its impact on Sacramento and the West.

Except for a gold scale on loan to the concessionaire (Skalet Family Jewelers), located on the first floor of the Tehama Block, neither CM&T Building nor the Tehama Block, contain collections; nor are there any current plans to develop exhibits at these sites.

## ***Access to Collections***

Collections are used for exhibit and research, as well as interpretation and education. Approximately 10% of the museum's permanent collection is on display in CSRM's 100,000-square foot RHM. Permanent exhibits feature artifacts, selected to tell the story of the primary interpretive themes. 82 pieces from the Museum's collection of full-size locomotives and cars are on display within the RHM, under the train shed, adjacent to the CPRR Passenger Station and along the right of way of the Sacramento Southern Railroad. Rotating temporary exhibits provide opportunities for more of the CSRM's collections to be on public exhibit. Remote access to CSRM collections is available on its website ([www.californiastaterailroadmuseum.org](http://www.californiastaterailroadmuseum.org)), which includes photographs of the RHM, its exhibits, short essays on various railroad history topics, and a detailed roster of the full-sized railroad equipment collection.

The primary point of public access to the CSRM's documentary collections is the CSRM Library, open to the public twenty hours, weekly. A librarian, archivist, and support staff handle approximately 5,000 reference requests each year. While each query is unique, popular research topics include family history, railroad station architecture, locomotive and rolling stock design, social and labor issues, and passenger travel. The Library's collection of over two million photographs is heavily used for on-site research and reproduced in print and media sources, worldwide.

The Library adds its published holdings to the Online Computer Library Center, an international bibliographic database available as "World Cat" at hundreds of public, university and special libraries worldwide. In 2001, the North American Railway Foundation funded the addition of selected Library catalogs to the CSRM website. Researchers can search for information about the Library's holdings of books and other published materials, archival and manuscript collections, engineering and architectural drawings, and selected photograph collections. In 2004, a grant from the L. J. Skaggs and Mary C. Skaggs Foundation funded scanning the Library's dining car menu collection for addition to the online catalog. With support from the Library Services & Technology Act (LSTA), between 2001 and 2003, the CSRM Library partnered with three Sacramento research institutions (California State Library, Center for Sacramento History and the Sacramento Public Library) to create Sacramento History Online ([www.sacramentohistory.org](http://www.sacramentohistory.org)) which features images and descriptions of more than 2,000 documents (photographs, pamphlets, posters, and other ephemera), relating to the history of transportation and agriculture in the Sacramento area.

Additional public access to CSRM collections comes through loans to other institutions or through special projects and events. In recent years, CSRM has loaned items to Sacramento's Sutter Club, the National Constitution Center (Philadelphia), the George Bush Presidential Museum (College Station, Texas), Stanford University, the Baltimore & Ohio Railroad Museum (Baltimore), the Nevada State Railroad Museum (Carson City), and the San Francisco Airport Museum. Full-sized railroad equipment has traveled to and operated at off-site California events in Reedley, Lone, and Niles Canyon.

## **Collections Care**

In 2004, State Parks identified “Leadership in Cultural Resources” as one of nine strategic initiatives and stated that “State Parks must play a leadership role in managing historic and cultural properties within the State Parks system and throughout the state. Nearly all State Park properties include cultural resources—thousands of potentially significant buildings, structures, landscapes, archaeological sites, and collections.” From its inception, the management and staff of OSSHP have been committed to professional care of its collections. Professional staff has always been part of the permanent staffing plan. Currently OSSHP’s curatorial department is composed of a Director of Collections, a librarian, archivist, and three curators, one with a focus on history and technology, the other two on object care and preservation, a museum technician, a museum custodian, as well as seasonal support staff and a loyal cadre of volunteers. Chapter 2000 of the Department Operations Manual (DOM) defines the Department’s museum collections management policies and procedures. The Department’s two-volume Museum Collections Handbook gives more details regarding these policies and includes chapters on acquisitions, registration, cataloguing, condition reports, conservation and other core collections management functions. Staff also implements nationally recognized standards for all aspects of collections management, as defined by the American Association of Museums, the American Library Association, the Association for State and Local History, the Association of Railway Museums, and the Association of Railway Museums.

To identify needs and measure progress, the Department accumulates data from parks units to assess the degree to which cultural resources are protected, preserved, and made available to public. OSSHP units annually complete the Department’s Museum Collections Facility Index (MCFI) report, which measures environmental conditions at facilities that house museum collections. State Parks’ Cultural Stewardship and Artifact Conservation Programs and the National Endowment for the Humanities has funded assessments by professional conservators, who have provided recommendations for improvements in environmental conditions (light, temperature, and humidity), pest management, security, storage and housekeeping. Museum objects with specific conservation needs have been identified and treated.

Only a small portion of OSSHP’s collections are on exhibit. The most heavily used portions of the CSRM’s documentary collections, such as photographs, published materials, and ephemera are stored in the Big Four Building; the remaining documentary collections (both processed and unprocessed) are stored off-site with the object collections. The CSRM houses collections in three West Sacramento facilities sites, totaling nearly 30,000 square feet. Collections from the other OSSHP units (B.F. Hastings Building, Eagle Theatre, Huntington, Hopkins & Company Hardware Store) are housed in a single 5,000-square foot unit also located in West Sacramento.

In addition, CSRM occupies two historic buildings on the site of the former Southern Pacific Sacramento Shops complex. These structures serve not only as the site for the Museum’s railroad equipment, maintenance, and restoration program, but will also provide display opportunities for a number of pieces of railroad equipment, as part of the RTM.

The CSRM's collections are extensive and diverse—in composition, size and current condition—factors which present many challenges to proper care. There are a number of problems with the existing facilities that argue for their replacement at the earliest possible opportunity. The current West Sacramento facilities are located within a FEMA-identified flood-hazard area. Storage space at all facilities is near capacity, limiting not only current uses, but also prohibiting any meaningful support for field units. Dedicated areas for conservation and processing are inadequate, in terms of size and functionality. The ability to provide public access to collections is limited. Moreover, environmental conditions are sub-standard and contribute to low MCFI-scores, year after year. The majority of the existing storage systems for objects and documents do not meet current professional museum standards for long-term protection.

Thus, as part of the Department's commitment to leadership in cultural resources, funds have been approved and the process has begun to select a site where all state collections can be consolidated into a single state-of-the-art facility. Those of the Capital District, of which OSSHP is part, together with statewide collections will be the primary tenants of a new facility scheduled for occupancy in 2012.

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## **APPENDIX E**

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### **2010 Visitor Survey for the California State Railroad Museum**

(Available on CD Enclosed with the General Plan)



## Appendix E:

# Summary Report

2010 Visitor Surveys  
California State Railroad Museum  
September 2010



## Introduction

This report summarizes the results from a user survey conducted inside the California State Railroad Museum in late August 2010. The purpose of the survey was to get a snapshot of visitor interests, how they became aware of and chose to visit the Museum, and their overall impression of the Museum's presentation and physical condition.

## Methodology

Based on information in the summary of the 2001 visitor survey (Hammond/Solinsky, 2001,) and input from the management team and visitor services staff, the team created a survey that we felt could be administered in less than five minutes. It contained 18 questions plus an opportunity for visitor comments (appendix A.) We also prepared a "short" survey using the first seven questions from the primary survey for visitors who would not have time for the longer survey.

We found that everyone approached was interested in completing the entire survey. Our initial design assumed that the survey taker would complete the survey in an interview format, but we quickly discovered that most visitors preferred to fill out the forms themselves. We felt that this would allow people to be more candid in their comments and provide a higher success rate.

Visitors who completed the survey were given certificates for one of four posters provided by the California State Railroad Museum Foundation that could be picked up when leaving the Museum.

To ensure a representative sample of all types of visitors, surveys were taken in two locations, in front of and along side the cab forward locomotive, which most visitors pass by as they are finishing their visit, and in the Thomas the Tank Engine area on the second floor. This area is popular with family groups with young children, and some of these groups may not visit other areas of the Museum.

Survey personnel were instructed to approach as many persons as possible, rather than "selecting" visitors, in order to make the sample as representative as possible of our actual visitor mix. At the Thomas the Tank Engine area, it was easy to conduct 100% surveys of visitors, because the space is better defined than many other areas of the Museum. At the cab forward area, this was not as simple, but survey takers were able to get information from a broad overview of visitors. Survey responses were evenly split between the two locations, and analysis of data taken at each location showed the same data trends.

Surveys were conducted by both paid staff and volunteers over a period of ten days in August 2010. By design, different time periods over a period of two weeks were chosen, so that surveys would be done during each day of the week and cover all time periods between 10 am and 4 pm. 306 surveys were administered.

## Summary Results

The data that stands out from analyzing the survey is the high proportion of children as visitors. 34% of our visitors are children under five years, 42% of visitors are children and 87% of our groups include minor children in their group.

The high percentage of children directly relates to the relatively small number of visitors who take the docent led tour. Question 14 asks whether visitors have taken the tour. A large percentage of visitors that do not take the tour (38%), do not take it because of small children. They feel that it would be boring for children or that bringing children on a tour might be disruptive. Several respondents even commented that the tour guide discouraged family groups from taking the tour.

### *Discussion*

#### ***Question 1 asked about the number of times the visitor has been to CSRM.***

The highest category for visitation was the people visiting 2-5 times, 120 individuals or 39%. This was closely followed by the first time visitor group, 117 people or 38%. The surprising category was that 25 people had visited 20+ times. Some of these people were members, but not all of them. There were also several people that visit once or twice a week.

#### ***Question 2 asked for the zip code.***

The highest percentage of visitors (43%) came from Sacramento Metropolitan area. The next highest percentage was from the Bay Area (21%), and the number of visitors from other California counties was 18%. For our out of state visitors, Oregon was the most represented with 7 individuals, followed by New York (4), and Florida (3). In all, people from 20 states are represented in the survey, and this represents 14% of our visitors. Six foreign countries were also represented; Canada, Germany, Austria, United Kingdom, France and Poland, and these represented 4% of the visitors surveyed.

#### ***Question 3 asked how visitors learned about CSRM.***

This question achieved varied responses. The largest response by far was word of mouth (121). This was followed by Internet (37), reputation from living here (30), school (28), and stumbled upon while visiting Old Sacramento (20). There was a sprinkling of other results as reflected in the spreadsheet.

#### ***Question 4 asked about ages in the party.***

Minor children represent 42% of our visitors. The largest age group was children 5 and under-- 34% or 522 people. The next largest group was the 26-40 category at 26%, or 395 people. In most cases these were the parents of the 5 and under group. These two age groups are 60% of the total visitors surveyed.

***Question 5 asked visitors to characterize their visit.***

The visitors rated their visit as excellent, good, fair or poor. 83% characterized their visits as excellent, and 17% said the visit was good. There were no fair or poor responses.

***Question 6 asked visitors to evaluate the physical condition of the Museum (cleanliness, maintenance.)***

The responses for this question were also ranked from excellent to poor. 84% rated the condition excellent, and 15% said it was good. There were no fair or poor responses. The reasons for the less than excellent rating included sinks in the bathrooms without water, no seat covers in the bathrooms, and some switches and lights out in exhibits.

***Question 7 asked visitors if they were aware of the Sacramento Southern Railroad, and if they planned to ride.***

Of the responses 73% were aware of the excursion train. Only 17% planned to ride, but many of the responses were taken during the week when the train is not running. There were consequently many requests for a weekday excursion train.

***Question 8 asked out of town visitors if they came to Sacramento to visit CSRM.***

47% of visitors came to Old Sacramento primarily to visit CSRM. This number included many out-of-state visitors as well.

***Question 9 asked if visitors had visited our website or Facebook page.***

The responses to this question were a bit surprising, 52% had visited our website. But, only 5% had visited our Facebook page. Many people wrote on the survey that they would be visiting both now that they were aware of them.

***Question 10 asked if visitors were Museum members.***

There were 90 members represented in the survey results (29%). All members said they thought it was a good value. Many of the 69% that were not members also answered that it was a good value, and planned on joining.

***Question 11 asked visitors to rank six subjects/activities in order of importance to them.***

Out of the 306 groups represented, 204 (67%) picked hands-on kids activities as their number one priority. When this included first or second priority it jumps to 82%. Many people picked kids activities and more interactive exhibits as their first and second choices. In order of importance to visitors, #1 Hands on activities for kids, #2 Interactive Exhibits, #3 Toys/Models, #4 Ethnic history, #5 Women's history and last (#6) Lectures/seminars.

***Question 12 asked visitors if they had attended any special events in Old Sacramento (both those connected with CSRM and other activities.)***

The Jazz Festival Events had the highest response at 14%, followed by Gold Rush Days (11%), and Polar Express (10%). The other events only had a few votes each.

***Question 13 asked visitors if they had seen the Museum's film Evidence of a Dream.***

The responses were surprising. 76% of visitors did not view the film. The reasons correlate with the responses to question 14. Many of those that commented on the film loved it, while some commented that it was dated or didn't hold their interest. Several said that they had to leave the film because it didn't hold their children's interest.

***Question 14 asked if visitors had taken the docent-led tour of the Museum.***

Only 7% of the 1,514 people represented took a tour. The overwhelming reason for not taking the tour was because of small children. Visitors either decided that the tour would not hold their children's attention, or in some cases had been told by the docents they could not take the tour with small children. Many survey responses suggested a children's tour in addition to the current guided tour.

***Question 15 asked if the visitor's children had come to CSRM on school trips.***

Only 8% of the groups surveyed had children who had been to CSRM on school trips, 40% had not. The rest skipped the question, or didn't have children this would apply to.

***Question 16 asked visitors to rate themselves as a visitor "type" to gauge their specific interest in railroad history.***

Sixty three percent of visitors rated themselves as general interest visitors, 36% said they were train fans, 16% history fans, and 3% serious train fans or foamers.

***Question 17 asked visitors if they were aware of the planned Railroad Technology Museum.***

Only 9% of the respondents had heard of the planned Railroad Technology Museum. Many that were aware were very excited about the project.

***Question 18 asked visitors if they had any surprising moments or experiences in the Museum.***

Please see appendix E for responses.

***Question 19 asked for suggestions for improvement.***

Please see appendix F for responses.

## Summary

The survey results captured many interesting results. It also highlighted a trend that needs to be addressed. By far the largest group of visitors is the 5 and under group and their parents. The parents have requested more hands on educational activities for their children. While the overwhelming response is positive for the Thomas play area and toy trains, it is simply not enough.

Educational, interactive exhibits for children is by far the largest user request. Even though children are the largest number of visitors, they have the least interpretive/educational content suitable for them. Comments indicating that the tour and/or film is is uninteresting or inappropriate are significant. The other significant point relative to this age range is the potentially lost revenue. Currently children 5 and under are admitted free. Given that this is 34% of our users, looking at revenue enhancement by charging a small fee for 4 and 5 year olds might be prudent. These children bring with them the largest paying group, their parents 26-40.

Ideas that could be developed further include story times focusing on railroad inspired books, children's tours, hands on exhibits, games or demonstrations throughout the museum, a reading area for the children and their parents, art centers, tactile learning centers, dress up or play areas, and play centers that highlight many of the goods that were transported by the railroad. Docent and guide training on interpretation for children could also prove useful.

## *Appendix 1: Survey Instrument*



### California State Railroad Museum User Survey

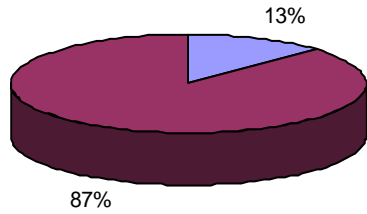
1. How many times have you visited CSRM (including today?) \_\_\_\_\_
2. May we have your zip code? \_\_\_\_\_
3. How did you learn about CSRM? \_\_\_\_\_
4. How many people in your party are between the ages of::  
     5 or under \_\_\_\_\_      6-10 \_\_\_\_\_      11-17 \_\_\_\_\_      18-25 \_\_\_\_\_  
     26-40 \_\_\_\_\_      41-59 \_\_\_\_\_      60 and above \_\_\_\_\_
5. How would you characterize your visit today?  
     Excellent \_\_\_\_\_ Good \_\_\_\_\_ Fair \_\_\_\_\_ Poor \_\_\_\_\_
6. Could you describe the overall condition of the museum at the time of your visit?  
     (Bathrooms, cleanliness, general upkeep)  
     Excellent \_\_\_\_\_ Good \_\_\_\_\_ Fair \_\_\_\_\_ Poor \_\_\_\_\_
7. Are you aware of our excursion train (y/n) \_\_\_\_\_. If yes, do you plan to ride today?  
     \_\_\_\_\_
8. (If from out of town) Did you come to Sacramento to visit CSRM? Y/N \_\_\_\_\_
9. Have you visited                      Our website? \_\_\_\_\_  
    Our Facebook page                      \_\_\_\_\_
10. Is anyone in your party a member of CSRM? \_\_\_\_\_ Is it a good value? \_\_\_\_\_
11. Please rank these in order of importance to you (1= most important, 6= least important)  
     Hands-on activities for kids \_\_\_\_\_                      Interactive exhibits \_\_\_\_\_  
     Ethnic history \_\_\_\_\_                                      Women's history \_\_\_\_\_  
     Toys/models \_\_\_\_\_                                      Lecture/seminars \_\_\_\_\_
12. Have you attended any special events in Old Sacramento?  
     Polar Express train \_\_\_\_\_                      Spookomotive \_\_\_\_\_  
     Toy Train holiday \_\_\_\_\_                      Sacramento Museum Day \_\_\_\_\_  
     CSRM "After hours" events \_\_\_\_\_                      (name/type) \_\_\_\_\_  
     Gold Rush Days \_\_\_\_\_                      Behind the Scenes/VIP tours \_\_\_\_\_  
     Jazz Festival events \_\_\_\_\_                      Other (name) \_\_\_\_\_

13. Did you view the Museum's introductory film, *Evidence of a Dream*? \_\_\_\_\_  
What did you like or not like? \_\_\_\_\_  
\_\_\_\_\_
14. Did you take a guided tour today? (y/n) \_\_\_\_\_. If not, why not? \_\_\_\_\_  
\_\_\_\_\_
15. If you have elementary/middle school children, have they come to CSRM on school trips? \_\_\_\_\_
16. Would you consider yourself:  
General interest visitor \_\_\_\_\_  
A history buff \_\_\_\_\_  
A train fan \_\_\_\_\_  
A serious train buff ("foamer") \_\_\_\_\_
17. Are you aware of the planned Railroad Technology Museum? \_\_\_\_\_
18. Did any content/programs or exhibits surprise you? Please describe:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
19. Do you have any suggestions for improvement?  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Thank You!**

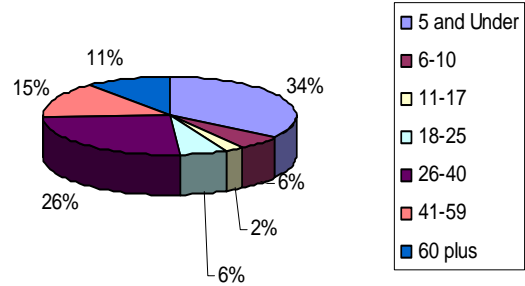
## Appendix 2: Selected, Plotted Data

**Groups with children**

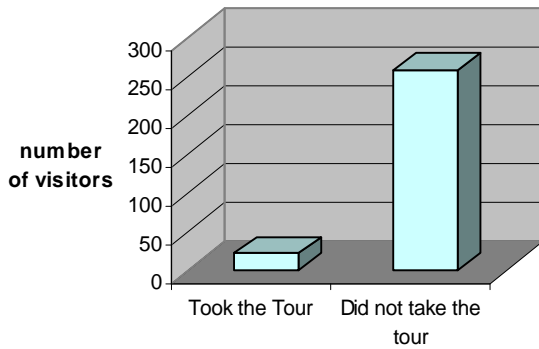


Groups with no children Groups with children

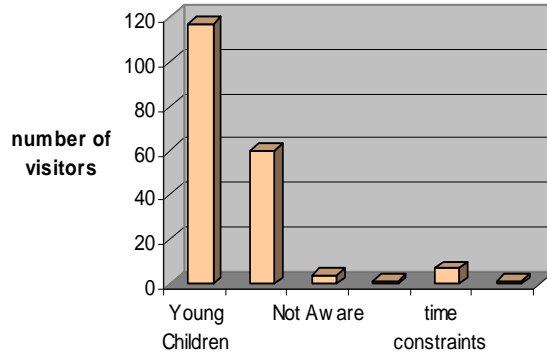
**Visitor Age Distribution**



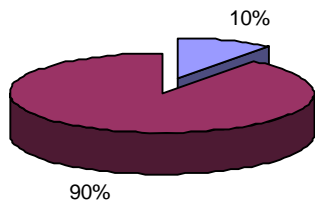
**Tour attendance**



**Reasons not to take tour**

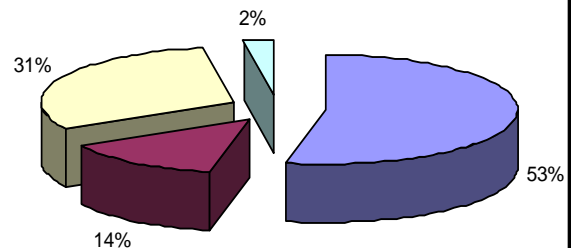


**Awareness of RTM**

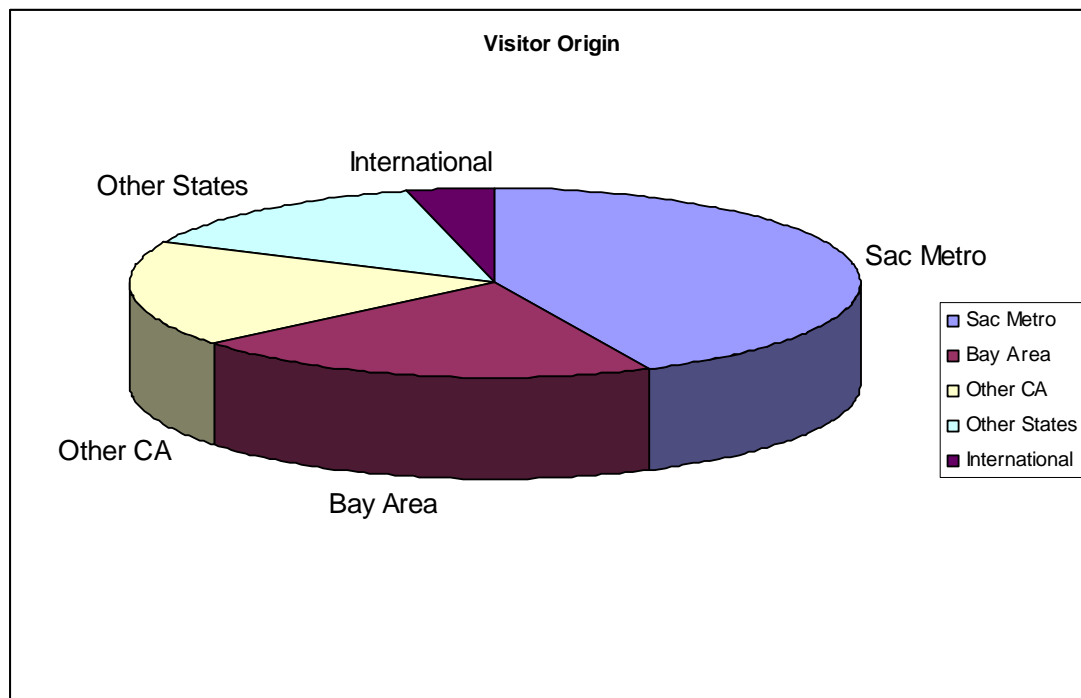


Aware of the RTM Not Aware of the RTM

**Visitor Type**



General Interest Visitor A history buff  
A train fan A serious train fan (foamer)



Appendix C: Dataset summary (excel)

**CSRM Visitor Survey**August  
2010

Total Groups 306  
(total individuals) 1514

**Age Distribution**

5 and Under	522	34%
6-10	89	6%
11-17	31	2%
18-25	94	6%
26-40	395	26%
41-59	220	15%
60 plus	163	11%
Groups with no children	39	13%
Groups with children	267	87%
Number of children	642	
percentage of children		42%
1 Times visited CSRM		
First Time	117	38%
2-5 Times	120	39%
6-9 Times	21	7%
10-14 Times	15	5%
15-19 Times	6	2%
20+ Times	25	8%

### Appendix 3: Dataset Summary (Excel)

3	How did you learn about CSRM		
	Word of Mouth	121	40%
	Newspaper or Magazine	13	4%
	Internet	37	12%
	School	28	9%
	From Living here	30	10%
	Stumbled upon	20	7%
	Work	2	1%
	Came as a child	17	6%
	State Parks	1	0%
	Don't remember	9	3%
	Another museum	2	1%
	Members	4	1%
	Hotel	1	0%
	TV	2	1%
	Tour	1	0%
	Amtrak	1	0%
	NMRA	1	0%
	Mind Institute	1	0%
	AAA	1	0%
	Visitor Center	1	0%
5	Visit Excellent	255	83%
	Good	51	17%
	Fair	0	0%
	Poor	0	0%
6	Museum Condition Excellent	258	84%
	Good	46	15%
	Fair	0	0%
	Poor	0	0%
7	Aware of Excursion Train	222	73%
	Not Aware of E.T.	84	27%
	Plan to ride	52	17%
	Not Plan to Ride	122	40%
8	Sac for CSRM	144	47%
	Not in Sac just for CSRM	77	25%

9a	Visited website	159	52%
	Not Visited website	145	47%
9b	Visited Facebook	14	5%
	Not Visited Facebook	288	94%
10	Member in Party	90	29%
	No Member in Party	210	69%
12	Attended Polar Express	30	10%
	Attended Toy Train Holiday	15	5%
	Attended CSRM After hours	10	3%
	Attended Gold Rush Days	33	11%
	Attended Jazz Festival Events	43	14%
	Attended Spookomotive	9	3%
	Attended Sac Museum Day	24	8%
	Behind the Scenes/VIP Tour	1	0%
	Railfair	3	1%
	Ice Cream Social	3	1%
	Crocker Event	2	1%
	Kids Birthday Party	1	0%
13	Viewed the Film	65	21%
	Did not view the Film	232	76%
14	Took the Tour	22	7%
	Did not take the tour	260	85%
	<i>(why tour not taken)</i>		
	Young Children	117	38%
	Not interested	60	20%
	Not Aware	4	1%
	language barrier	1	0%
	time constraints	7	2%
	Health	1	0%

15	Yes on school trips	24	8%
	No on School trips	122	40%
16			
	General Interest Visitor	193	63%
	A history buff	49	16%
	A train fan	111	36%
	A serious train fan (foamer)	9	3%
17			
	Aware of the RTM	28	9%
	Not Aware of the RTM	248	81%
	Members included in survey	89	

## Appendix 4: Zip Code Summary

### Zip Code Analysis

### 2010 CSRM Visitor Survey

zip code		location	zip code		location	zip code		location
<b>Sac County</b>			<b>Placer Co.</b>			<b>Yolo Co.</b>		
95608	2	Carmichael	95608	1	Carmichael	95605	1	W. Sac
95621	3	Citrus Heights	95648	4	Lincoln	95616	3	Davis
95624	4	Elk Grove	95655	1	Mather	95618	6	Davis
95624	1	Elk Grove	95661	1	Roseville	95627	1	Esparto
95628	1	Fair Oaks	95663	2	Penryn	95691	1	W. Sac
95632	2	Galt	95677	1	Rocklin	95776	1	Woodland
95670	3	Rancho Cordova	95678	4	Roseville	<b>Amador Co.</b>		
95757	3	Elk Grove	95701	1	E. Sac	95669	1	Plymouth
95758	5	Elk Grove	95717	1	Gold Run Meadow	<b>Butte Co.</b>		
95811	1	Sacramento	95722	1	Vista	95969	1	Paradise
95814	1	Sacramento	95747	2	Roseville	<b>Yuba Co.</b>		
95815	1	Sacramento	95765	3	Rocklin	95961	1	Olivehurst
95816	1	E. Sacramento	<b>Eldorado Co.</b>			95991	1	Yuba City
95817	3	Tahoe Park	95613	2	Coloma	95993	1	Yuba City
95818	2	Land Park	95614	1	Greenwood			
95819	7	E. Sacramento	95630	2	Folsom			
95820	2	Tahoe Park	95634	1	Georgetown			
95822	3	Pocket	95667	2	Placerville			
95824	1	Fruitridge Manor	95682	2	Shingle Spr.			
95825	2	Arden	<b>Nevada Co.</b>					
95826	1	Rosemont	95949	1	Grass Valley			
95827	2	Mather						
95828	4	Gerber Rd.						
95829	1	Florin						
95830	1	Florin						
95831	4	Pocket						
95832	2	Valley Hi						
95833	4	Natomas						
95834	2	Natomas						
95835	4	SMF						
95842	2	N. Highlands						
95843	3	Antelope						
95857	1	Arden-Arcade						
95864	6	Arden-Arcade						
sum	85			33			18	

zip code		location	zip code		location	zip code		location
<b>Lake Co.</b>			<b>San Mateo Co.</b>			<b>Bay Area</b>		
95451	1	Kelseyville	94014	1	Daly City	95120	1	San Jose
			94404	1	San Mateo	95134	1	San Jose
			94064	1	Redwood City	94564	1	Pinole
						94568	1	Dublin
						94931	1	Cotati
<b>Contra Costa Co.</b>			<b>Alameda Co.</b>			94531	1	El Cerrito
94518	1	Concord	94501	1	Alameda	94530	2	El Cerrito
94595	1	Walnut Creek	94549	1	Lafayette	94904	1	Greenbrae
94596	1	Walnut Creek	94703	1	Berkeley			Santa Clara
						94610	1	Co.
94597	2	Walnut Creek	94502	2	Alameda	94043	1	Martinez
94598	2	Walnut Creek				94553	7	Vacaville
						95687	1	Berkeley
						94501	2	Brentwood
<b>SF Co.</b>			<b>Solano Co.</b>			94513	1	Dublin
94114	2	San Francisco	95687	1	Vacaville	94568	1	Fremont
94127	1	San Francisco				94539	1	Palo Alto
94105	1	San Francisco				94304	1	Newark
94110	1	San Francisco				94560	4	San Ramon
						94583	2	Pacifica
						94044	1	Concord
						94521	1	Concord
						94553	2	Martinez
						94549	1	Lafayette
						94605	2	Oakland
						94564	2	Pinole
						94806	1	San Pablo
						95130	1	San Jose
						94556	1	Moraga
Sum	13			9			43	

**SJ Valley**

zip code	location	zip code	location	zip code	location
<b>San Joaquin Co.</b>		<b>Merced Co.</b>		<b>SoCal</b>	
95203	1 Stockton	95340	1 Merced	90245	1 El Segundo
95206	1 Stockton	95388	1 Winton	90602	1 Whittier
95207	2 Stockton			90706	1 Bellflower
95219	4 Stockton			91001	1 Altadena
95220	1 Acampo	<b>Kern Co.</b>		91321	1 Newhall
95237	1 Lockeford	93307	1 Bakersfield	91355	1 Valencia
95240	1 Lodi			91607	1 Valley Village
95336	1 Manteca			91723	1 Covina
95366	2 Ripon			91724	1 Covina
95382	1 Turlock			91744	1 La Puente
				91801	1 Alhambra
		<b>Sonoma Co.</b>		92118	1 Valencia
			Santa Rosa	92126	1 San Diego
93611	1 Clovis	95403	1	92201	1 Indio
93612	1 Clovis			92234	1 Cathedral City
93626	1 Friant			92262	1 Palm Springs
93654	1 Shaver Lake			92620	1 Irvine
93702	1 Fresno			92626	1 Costa Mesa
93706	1 Fresno			92630	1 Lake Forest
93710	1 Fresno				Huntington
				92646	1 Beach
				92706	1 Santa Ana
				92870	1 Tustin
				93012	1 Camarillo
<b>Tulare Co.</b>					
93221	1 Exeter				
93292	1 Visalia				
SUM	24		4		23

**Visitor Origin  
(percent)**

Sac Metro	43
Bay Area	21
Other CA	18
Other States	14
International	4

**Out of State**

<b>TX</b>			<b>NE</b>			<b>NY</b>			<b>KY</b>		
76502	1		68154	1	Omaha	10509	1	Brewster	41034	1	Dover
78739	1					11225	1	Brooklyn			
						11235	1	Brooklyn			
								Rockville			
<b>NV</b>			<b>MA</b>			11570 1 Centre			<b>NC</b>		
89508	1		02445	1	Brookline				28277	1	Charlotte
<b>CO</b>			<b>OR</b>			<b>NO zip</b>			<b>NJ</b>		
80228	1	Denver	97103	1	Astoria	XXXXX	8		07928	1	Chatham
			97404	1	Eugene						
			97471	1	Roseburg						
<b>D.C.</b>			97520	1	Ashland	<b>MN</b>			<b>AZ</b>		
20016	1		97701	1	Bend	55410	1	Minneapolis	85382	1	Peoria
			97707	2	Bend						
<b>GA</b>			<b>FL</b>			<b>VA</b>			<b>WY</b>		
30075	1	Rosewell	32548	1	Lutz	22435	1	Callao	82801	1	Sheridan
			33626	1	Tampa						
<b>IA</b>			34210	1	Bradenton	<b>WA</b>			<b>WI</b>		
50638	1	Grundy Center				98245	1	Eastsound	52405	1	Racine
52068	1	Peosta				98607	1	Camas	54313	1	Green Bay
sum	8			0			16			7	
<b>Canada</b>			<b>Germany</b>								
VIM3Y3	1		D-10437	1							
V4N2M5	1		D-67227	1							
V2N3E4	1										
<b>Austria</b>			<b>UK</b>								
XXXXX	1		XXXXX	2							
<b>Poland</b>			<b>France</b>								
XXXXX	1		XXXXX	2							
sum	5			6							

## ***Appendix 5: Visitor Comments***

### ***Surprise Statements***

#### ***Responses to the question #19:***

#### ***Did any content/programs or exhibits surprise you? Please describe:***

The entire museum is fantastic, and much nicer, bigger, so well done more than I expected.”  
~Green Bay, Wisconsin.

“The Thomas the Tank Engine interactive wooden railway set up took me by surprise. This is really great for kids who enjoy trains and playing with them. It gives children hands on learning experiences.” ~Fort Walton Beach, Florida.

“Nice to see the kids’ tables upstairs.” ~Sacramento, California

“The toy trains were a surprise.” ~Brewster, New York.

“The Pullman Car-excellent docents!” Coronado, California.

“The attention to women’s issues and ethnic issues was a very pleasant surprise.” ~Brooklyn, New York.

“All good. We love the trains that you can walk on. Mix of info that adults (not chasing after 2 year olds) can view was great!” ~Oakland, California.

“Really liked being able to go onto the trains. But, more interactive exhibits for the kids please.” ~Mountain View, California.

“The sleeping train, very realistic.” ~Camas, Washington.

“How complete the museum is, and our son loves the new Thomas the train table.” ~Member. Rocklin, California.

“New toy train table was a nice surprise today.” ~Member. Sacramento, California.

“Really liked the migrant worker photo exhibit and Lincoln exhibit earlier.” ~Member. Stockton, California.

“I am always amazed by the dedication and of staff and volunteers-Top Notch!” ~Member. Mather, California.

“The exhibit regarding the history of the Pullmans (George).” ~Santa Ana, California.

“The moving sleeper was great!” ~Folsom, California.

“Full size trains were dancing!” ~El Cerrito, California.

"The women's history exhibit/Rosie." ~Walnut Creek, California.

"The continental Railroad exhibit was impressive." ~Martinez, California.

"We like the way you present the train, the surroundings you built around them! To us the museum looks like a real train station." ~France.

"Yes-the dinning coach. I remember riding one like it when I was a child from Michigan to California." ~Warrenton, Oregon.

"All was absolutely amazing. I really loved the sleeper car with the simulated train movement!! I loved all the mannequins and wax figures too!" ~Davis, California.

"I was surprised by the sleeping car. I enjoyed how it moved." ~San Jose, California.

"The train car that moved and made noise which made it seem like you were on a real train. That was cool!" ~Lake Forest, California.

"George was a great guide. He knows his history and was very interesting." ~Placerville, California.

"The sheer size of the train exhibits surprised me. I especially enjoyed the "lost Spike" exhibit. ~Ripon, California.

"Porter and the History of women." ~Oakland, California.

"Yes the quality and quantity of the trains." ~Tampa, Florida.

"I was surprised at how early the railroad hired women." ~Dublin, California.

"Yes-all the trains are in very good condition. I'm really surprised." ~ Poland.

"Good layout...spacious." ~Sacramento, California.

"The size of the place is surprising." ~ Yuba City, California.

"The automated train exhibits have been a great attraction for the kids." ~Member. Sacramento, California.

"Yes the simulated train car was so life like. Reminded me of a modern day Amtrak ride." ~ Member. Roseville, California.

I love the movie train with Charlie sleeping, and the Diner train!" ~Member. Sacramento, California.

"I'm very happy to find the Thomas the Train stuff for our boys. They loved it!!!! ~Yuba City, California.

"The moving train walk through, and the last Golden Spike exhibit." ~Clovis, California.

"Exhibit with the camera on the front that showed the conductor's view was wonderful." ~Cotati, California.

"All exhibits are well maintained." ~Rocklin, California.

"Enjoyed the mail car and front engine with volunteer describing the history." ~Washington, D.C.

"The photo exhibit Photography and Art was a surprise." ~San Francisco, California.

"Thomas tables...great for kids!" ~Rancho Cordova, California.

"George's knowledge!" ~Palm Springs, California.

"I was impressed with the realism of the exhibits." ~Bend, Oregon.

"Our tour guide was excellent. We enjoyed his wealth of knowledge! Name of the guide was George." ~Cathedral City, California.

"Yes, all of it, it's gorgeous and fascinating!" ~Sacramento, California.

"Yes the Georgia Northern and the large engines." ~Bakersfield, California.

"Awed by the history-the immensity of the human endeavor. Like the interactive exhibits." ~Fair Oaks, California.

"Quality of the engines shown." ~France.

"Yes, I didn't realize the 4294 was so massive." ~Sheridan, Wyoming.

"My visit today rekindled my lifelong interest in history. I am an exhausted, overstressed single mother of two small children. My children loved the museum-but the museum had a 'transformational' effect on me. It may have been successful in rekindling my interest in history, and turned me into a train fan and ignited my potential to be a serious train fan (foamer).  
THANK YOU! ~Ashland, Oregon.

## ***Attachment 6: Suggestions from Visitors***

### ***Suggestions for Improvement***

#### ***“Do you have any suggestions for improvement?”***

“More toy trains OTHER THAN THOMAS! My kids love toy trains, but not Thomas! ~Redwood City, California.

“I think this is a wonderful museum. You have done a wonderful job.”

~Sacramento, California.

“The kids need something to ride during the weekdays. Train rides turned out to be weekends only, but our kids were really excited for days in advance to come take a ride and were a bit disappointed. Otherwise all great.” ~San Mateo, California.

“A reasonably priced gift shop for kids!” ~Martinez, California.

“Ramps for disabled people to see the insides of the exhibits.” ~Germany

“More open trains and locomotives.” ~ Sacramento, California.

“Signage for correct route through exhibit site.” ~Unknown Location.

“More interactive Exhibits!” ~Camas, Washington.

“The second story needs more exhibits. Please return the steam cycle display on how the steam turns/powers the wheels.” ~Roseburg, Oregon.

“Train rides during the week in summer.” ~Rockville Center, New York.

“More interactive exhibits for the kids please. Would be great if the excursion train could run on a weekday.” ~Mountain View, California.

“Offering a package with Amtrak would be fantastic! From Oakland Amtrak and the train museum is a great day, but too expensive!” ~Oakland, California.

“Some switches and sounds were not working.” ~Lafayette, California.

“Changing tables in the bathrooms.” ~Fresno, California.

“Snack Bar-I get thirsty on a hot day!” ~Brewster, New York.

“More interactive activities for children on a daily visit not just every once and a while. Most of the exhibits are geared towards adults (reading etc). A lot of the cars and locomotives a child

under 3-4 feet tall can't see inside, so interest is lost pretty quick until they reach the toy table.”  
~Member. Sacramento, California.

“More activities with kids, and better communication on upcoming events, activities, etc.”  
~Member. Mather, California.

“More access to train interiors/engine rooms.” ~Member. Sacramento, California.

“More interaction with the technology for kids would be great-not just Thomas stuff. Maybe like a camp for kids to work and learn.” ~Member. Turlock, California.

“More hands on for kids.” ~Member. Stockton, California.

“More interactive. Able to board large train exhibits, we like to go inside the trains.” ~Member. Rocklin, California.

“More trains that you can go in or climb on would be fun for the kids.” ~Member. Davis, California.

“Let the children make noise (blow a train Whistle) that's appropriate like a quiet whistle. They could dress up somehow, buy a ticket, or do something active on a mail car. Set times for the activities.” ~Member. Davis, California.

“I would love to be able to go inside more of the trains. I remember coming here in the 80's. It has really improved since then. ~San Jose, California.

“Snack Bar!” ~Davis, California.

“Have French and other language translation on guide book or leaflets.” ~France

“More interactive for kids!” ~La Puente, California.

“More for little kids (under five) to do in addition to toys.” ~Martinez, California.

“Tours for Kids!” ~El Cerrito, California.

“My son says SERVE FOOD!” ~Folsom, California.

“I am returning because my son really liked the museum,” ~Santa Ana, California.

“More kid Guided tours.” ~Martinez, California.

“More activities/toys/hands on for kids.” ~Carmichael, California.

“More trains that you can enter into.” ~Lincoln, California.

“Fix the Thomas LGB train...my kids love it!! ~Sacramento, California.

"Some poorly lit areas could use more light- the entry exhibit on the transcontinental is frightening to my 2 year old. It flavored the rest of his experience. ~Valley Village, California.

"More walk through cars, more kid friendly and hands on activities-you can never have enough for kids." ~Martinez, California.

"Kid friendly tours." ~Concord, California.

"You need to clean and sanitize the kids play area, especially the carpet and toys. Also bring back Day out with Thomas! Please install sanitizer pumps in areas with hands on activities and toys." ~Member. Sacramento, California.

"Have Thomas the Tank Engine music playing where Thomas play tables are located. More interactive exhibits! More trains the kids and adults can go into." ~Member. Granite Bay, California.

"Hand sanitizer in the children's play area. Changing tables in the restrooms." ~Member. Elk Grove, California.

"Allowing more entrance on different trains." ~Member. Sacramento, California.

"More interactive exhibits; buttons, levers, and switches that can do things." ~Member. Sacramento, California.

"More trains for my child to play with upstairs." ~Member. Sacramento, California.

"Be sure that the younger children (not older children) can play. Not enough room." ~Member. Elk Grove, California.

"More train sets for kids (upstairs) it can get busy on the weekends." ~Member. Carmichael, California.

"More trains to interact on." ~San Jose, California.

"More hands-on educational exhibits for little kids." ~Pinole, California.

"I was asking questions about future visits when buying a ticket today but she did not mention Caboose Club or season passes." ~Roswell, Georgia.

"Children's interactive exhibits." ~Bend, Oregon.

"Kids exhibits downstairs too. Kids have a hard time climbing so many stairs." ~Roseville, California.

"The trains you can go into are great." ~Yuba City, California.

"More interactive programs!" ~Sacramento, California.

“Really enjoy getting to go inside the trains.” ~Carmichael, California.

“It should be great idea to enter to train.” ~Poland.

“More interactive exhibits.” ~Dublin, California.

“The lightening is not great for photography in some areas of the museum. My SLK camera was ok, but cheap cameras would struggle.” ~ Unknown Location.

“More hands on.” ~Tampa, Florida.

“More interactive exhibits.” ~Brooklyn, New York.

## **APPENDIX F**

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### **Train Emission Calculations**

(Available on CD Enclosed with the General Plan)



## Old Sac Railroad Air Pollutant Emissions Model

Location	Trips per Day <sup>1</sup>	Daily Engine Hours <sup>2</sup>	Gallons Per Hour <sup>3</sup>	Pounds per Day <sup>4</sup>			
				ROG	NOX	CO	PM
OSSHHP to Zoo Route	4	3.00	27	3.75	6.80	64.64	1.64
Meadowview to Hood Route	3	6.00	27	7.50	13.61	129.29	3.29
<b>Total</b>				11.25	20.41	193.93	4.93
Tons Per Year (maximum of 378 trains per year)							
				ROG	NOX	CO	PM
				0.02	0.04	0.38	0.01
						CO2	MT/yr
						9.61	

## Assumptions:

Emission Factors<sup>4,5</sup>: ROG: 21 g/gal, CO: 38.1 g/gal, NOX: 362 g/gal, PM: 9.2 g/gal, CO2 22.2 lbs/gal

Formula: Emission Factor \* Gallons of Fuel Per Hour \* Daily Engine Hours \* Conversion to Pounds from Grams = Pounds Per Day Emissions

Train Trips based from OSSHP would be 60 minutes in length, Train trips based in Meadowview would be 2 hours in length

## References:

<sup>1</sup> Train Operations Assumptions from OSSHP General Plan Assumptions Update September 8, 2011

<sup>2</sup> Daily Engine Hours Estimated from existing train operations as stated at: <http://www.csmf.org/train-rides/all-aboard-excursion-train-rides>; adjusted to reflect additional distance to Zoo versus Baths

<sup>3</sup> Gallons Per Hour assumption taken from previous air quality emissions modeling from Excursion Train DEIR page 81

<sup>4</sup> Emission factors from EPA Emission Factors for Locomotives, Table 2 Tier 0 Switch Locomotive (most conservative EF) available: <http://www.epa.gov/nonroad/locomotv/frm/42097051.pdf>

<sup>5</sup> CO2 emissions factors from EPA Average Carbon Dioxide Emissions Resulting from Gasoline and Diesel Fuel, available: <http://www.epa.gov/otaq/climate/420f05001.htm#calculating>

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Urbemis 2007 Version 9.2.4

## Detail Report for Summer Area Source Unmitigated Emissions (Pounds/Day)

File Name: C:\Users\WeirichJ\AECOM Projects\Old Sac Train\Old Sac URBEMIS.urb924

Project Name: OSSHP

Project Location: Sacramento County AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

## AREA SOURCE EMISSION ESTIMATES (Summer Pounds Per Day, Unmitigated)

<u>Source</u>	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth							
Landscape	0.12	0.02	1.55	0.00	0.01	0.01	2.81
Consumer Products							
Architectural Coatings	0.00						
TOTALS (lbs/day, unmitigated)	0.12	0.02	1.55	0.00	0.01	0.01	2.81

Area Source Changes to Defaults

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Urbemis 2007 Version 9.2.4

## Detail Report for Summer Operational Unmitigated Emissions (Pounds/Day)

File Name: C:\Users\WeirichJ\AECOM Projects\Old Sac Train\Old Sac URBEMIS.urb924

Project Name: OSSHP

Project Location: Sacramento County AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

## OPERATIONAL EMISSION ESTIMATES (Summer Pounds Per Day, Unmitigated)

<u>Source</u>	ROG	NOX	CO	SO2	PM10	PM25	CO2
City park	12.41	14.81	171.63	0.18	1.46	0.91	17,909.01
TOTALS (lbs/day, unmitigated)	12.41	14.81	171.63	0.18	1.46	0.91	17,909.01

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2013 Temperature (F): 95 Season: Summer

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
City park		170.69	acres	13.00	2,218.97	16,586.80
					2,218.97	16,586.80

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	47.5	0.6	99.2	0.2
Light Truck < 3750 lbs	10.0	2.0	93.0	5.0

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Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Truck 3751-5750 lbs	22.6	0.4	99.2	0.4
Med Truck 5751-8500 lbs	10.2	1.0	99.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	2.1	0.0	76.2	23.8
Lite-Heavy Truck 10,001-14,000 lbs	0.9	0.0	55.6	44.4
Med-Heavy Truck 14,001-33,000 lbs	1.6	0.0	18.8	81.2
Heavy-Heavy Truck 33,001-60,000 lbs	0.5	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	3.5	54.3	45.7	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.9	0.0	88.9	11.1

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	10.8	7.3	7.3
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	10.0	10.0
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
City park				5.0	2.5	92.5

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Urbemis 2007 Version 9.2.4

## Summary Report for Annual Emissions (Tons/Year)

File Name: C:\Users\WeirichJ\AECOM Projects\Old Sac Train\Old Sac URBEMIS.urb924

Project Name: OSSHP

Project Location: Sacramento County AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

## AREA SOURCE EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	0.01	0.00	0.14	0.00	0.00	0.00	0.25

## OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	2.33	3.15	29.89	0.03	0.27	0.17	3,054.84

## SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	2.34	3.15	30.03	0.03	0.27	0.17	3,055.09

# Source Pathway - Source Inputs

AERMOD

## Point Sources

No Point Sources Specified

## Volume Sources

No Volume Sources Specified

## Area Sources

No Area Sources Specified

## Open Pit Sources

No Open Pit Sources Specified

## Circular Area Sources

No Circular Area Sources Specified

## Polygon Area Sources

No Polygon Area Sources Specified

## Flare Sources

No Flare Sources Specified

## Line Sources

Source Type: LINE

Source: TRAIN (Train)

Length of Side [m]	Emission Rate [g/ s]	Building Height [m]	X Coordinate for Points [m]	Y Coordinate for points [m]	Base Elevation [m]	Release Height [m]
3.00	0.06897	Surface-Based	630214.41	4266674.32	2.00	5.00
			630061.44	4267110.69	2.00	5.00
			629986.04	4267238.19	2.00	5.00

# Source Pathway - Source Inputs

AERMOD

## Volume Sources Generated from Line Sources

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimension [m]	Initial Vertical Dimension [m]
TRAIN	L0000001	630213.91	4266675.74	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000002	630211.94	4266681.36	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000003	630209.97	4266686.98	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000004	630208.00	4266692.60	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000005	630206.03	4266698.22	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000006	630204.06	4266703.84	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000007	630202.09	4266709.46	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000008	630200.12	4266715.08	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000009	630198.15	4266720.70	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000010	630196.18	4266726.32	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000011	630194.21	4266731.94	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000012	630192.24	4266737.56	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000013	630190.27	4266743.19	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000014	630188.30	4266748.81	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000015	630186.33	4266754.43	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000016	630184.36	4266760.05	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000017	630182.39	4266765.67	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000018	630180.42	4266771.29	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000019	630178.45	4266776.91	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000020	630176.48	4266782.53	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000021	630174.51	4266788.15	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000022	630172.54	4266793.77	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000023	630170.57	4266799.39	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000024	630168.59	4266805.01	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16

# Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimension [m]	Initial Vertical Dimension [m]
TRAIN	L0000025	630166.62	4266810.64	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000026	630164.65	4266816.26	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000027	630162.68	4266821.88	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000028	630160.71	4266827.50	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000029	630158.74	4266833.12	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000030	630156.77	4266838.74	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000031	630154.80	4266844.36	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000032	630152.83	4266849.98	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000033	630150.86	4266855.60	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000034	630148.89	4266861.22	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000035	630146.92	4266866.84	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000036	630144.95	4266872.46	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000037	630142.98	4266878.09	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000038	630141.01	4266883.71	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000039	630139.04	4266889.33	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000040	630137.07	4266894.95	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000041	630135.10	4266900.57	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000042	630133.13	4266906.19	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000043	630131.16	4266911.81	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000044	630129.19	4266917.43	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000045	630127.22	4266923.05	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000046	630125.25	4266928.67	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000047	630123.28	4266934.29	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000048	630121.31	4266939.91	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000049	630119.34	4266945.54	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16

# Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimension [m]	Initial Vertical Dimension [m]
TRAIN	L0000050	630117.36	4266951.16	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000051	630115.39	4266956.78	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000052	630113.42	4266962.40	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000053	630111.45	4266968.02	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000054	630109.48	4266973.64	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000055	630107.51	4266979.26	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000056	630105.54	4266984.88	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000057	630103.57	4266990.50	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000058	630101.60	4266996.12	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000059	630099.63	4267001.74	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000060	630097.66	4267007.36	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000061	630095.69	4267012.99	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000062	630093.72	4267018.61	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000063	630091.75	4267024.23	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000064	630089.78	4267029.85	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000065	630087.81	4267035.47	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000066	630085.84	4267041.09	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000067	630083.87	4267046.71	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000068	630081.90	4267052.33	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000069	630079.93	4267057.95	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000070	630077.96	4267063.57	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000071	630075.99	4267069.19	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000072	630074.02	4267074.81	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000073	630072.05	4267080.44	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000074	630070.08	4267086.06	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16

# Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimension [m]	Initial Vertical Dimension [m]
TRAIN	L0000075	630068.10	4267091.68	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000076	630066.13	4267097.30	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000077	630064.16	4267102.92	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000078	630062.19	4267108.54	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000079	630059.57	4267113.86	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000080	630056.54	4267118.98	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000081	630053.50	4267124.11	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000082	630050.47	4267129.24	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000083	630047.44	4267134.36	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000084	630044.41	4267139.49	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000085	630041.38	4267144.62	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000086	630038.34	4267149.74	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000087	630035.31	4267154.87	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000088	630032.28	4267160.00	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000089	630029.25	4267165.12	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000090	630026.22	4267170.25	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000091	630023.19	4267175.38	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000092	630020.15	4267180.50	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000093	630017.12	4267185.63	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000094	630014.09	4267190.76	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000095	630011.06	4267195.88	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000096	630008.03	4267201.01	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000097	630004.99	4267206.14	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000098	630001.96	4267211.26	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000099	629998.93	4267216.39	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16

# Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimension [m]	Initial Vertical Dimension [m]
TRAIN	L0000100	629995.90	4267221.52	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000101	629992.87	4267226.65	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000102	629989.84	4267231.77	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16
	L0000103	629986.80	4267236.90	2.00	5.00	0.00067	3.00	Surface-Based	2.77	1.16

# Source Pathway

AERMOD

## Building Downwash Information

Option not in use

## Emission Rate Units for Output

<b>For Concentration</b>	
Unit Factor:	1E6
Emission Unit Label:	GRAMS/SEC
Concentration Unit Label:	MICROGRAMS/M**3

## Data for Gases

Option not in use

## Gas & Particle Data For Risk Mode

### Vapor Phase

Source ID	Scavenging Coef. Liquid [(s-mm/hr)^-1]	Scavenging Coef. Frozen [(s-mm/hr)^-1]

### Particle Phase

Source ID	Particle Diameter [microns]	Mass Fraction [0 to 1]	Particle Density [g/cm^3]	Scavenging Coef. Liquid [(s-mm/hr)^-1]	Scavenging Coef. Frozen [(s-mm/hr)^-1]

### Particle-Bound Phase

Source ID	Particle Diameter [microns]	Mass Fraction [0 to 1]	Particle Density [g/cm^3]	Scavenging Coef. Liquid [(s-mm/hr)^-1]	Scavenging Coef. Frozen [(s-mm/hr)^-1]

## Variable Emission Rate

### Seasonally Emission Rate Variation

Option not in use

### Monthly Emission Rate Variation

Option not in use

### Hourly Emission Rate Variation

Option not in use

# Source Pathway

AERMOD

## Wind Speed Emission Rate Variation

Option not in use

## Season / Hour-of-Day Emission Rate Variation

Option not in use

## Season / Hour-of-Day / Day-of-Week Emission Rate Variation

Option not in use

# Receptor Pathway

AERMOD

## Receptor Networks

Note: Terrain Elevations and Flagpole Heights for Network Grids are in Page RE2 - 1 (If applicable)  
Generated Discrete Receptors for Multi-Tier (Risk) Grid and Receptor Locations for Fenceline Grid are in Page RE3 - 1 (If applicable)

### Uniform Cartesian Grid

Receptor Network ID	Grid Origin X Coordinate [m]	Grid Origin Y Coordinate [m]	No. of X-Axis Receptors	No. of Y-Axis Receptors	Spacing for X-Axis [m]	Spacing for Y-Axis [m]
UCART1	628987.25	4266086.26	50	50	45.58	43.55

### Non-Uniform Cartesian Grid

Option not in use

### Uniform Polar Grid

Option not in use

### Non-Uniform Polar Grid

Option not in use

## Discrete Receptors

### Discrete Cartesian Receptors

Option not in use

### Discrete Polar Receptors

Option not in use

## Plant Boundary Receptors

### Cartesian Plant Boundary

#### Primary

Option not in use

#### Intermediate

Option not in use

## Discrete Cartesian Receptors (ARC) for EVALFILE Output

Option not in use

# Receptor Pathway

AERMOD

## Multi-Tier Grid (Risk)

### Grid Settings

Grid Origin:	630214.41	4266674.32
Number of Tiered Segments:	2	

Segment Number	Distance from Center (Origin) [m]	Spacing [m]
1	3000.00	100.00
2	10000.00	500.00

## Receptor Groups

Record Number	Group ID	Group Description
1	RISK	Receptors generated from Risk Grid

# Receptor Pathway

AERMOD

## Multi-Tier Grid (Risk)

### Grid Settings

Grid Origin:	630214.41	4266674.32
Number of Tiered Segments:	2	

Segment Number	Distance from Center (Origin) [m]	Spacing [m]
1	3000.00	100.00
2	10000.00	500.00

### Generated Discrete Receptors

Record Number	Location: X-Coordinate [m]	Location: Y-Coordinate [m]	Group Name (Optional)	Terrain Elevations (Optional)	Flagpole Heights [m] (Optional)
1	627214.44	4263674.50	RISK	Option not Selected	Option not Selected
2	627214.44	4263774.50	RISK		
3	627214.44	4263874.50	RISK		
4	627214.44	4263974.50	RISK		
5	627214.44	4264074.50	RISK		
6	627214.44	4264174.50	RISK		
7	627214.44	4264274.50	RISK		
8	627214.44	4264374.50	RISK		
9	627214.44	4264474.50	RISK		
10	627214.44	4264574.50	RISK		
11	627214.44	4264674.50	RISK		
12	627214.44	4264774.50	RISK		
13	627214.44	4264874.50	RISK		
14	627214.44	4264974.50	RISK		
15	627214.44	4265074.50	RISK		
16	627214.44	4265174.50	RISK		
17	627214.44	4265274.50	RISK		
18	627214.44	4265374.50	RISK		
19	627214.44	4265474.50	RISK		
20	627214.44	4265574.50	RISK		
21	627214.44	4265674.50	RISK		
22	627214.44	4265774.50	RISK		
23	627214.44	4265874.50	RISK		
24	627214.44	4265974.50	RISK		
25	627214.44	4266074.50	RISK		
26	627214.44	4266174.50	RISK		
27	627214.44	4266274.50	RISK		
28	627214.44	4266374.50	RISK		
29	627214.44	4266474.50	RISK		

# Receptor Pathway

AERMOD

30	627214.44	4266574.50	RISK	Option not Selected	Option not Selected
31	627214.44	4266674.50	RISK		
32	627214.44	4266774.50	RISK		
33	627214.44	4266874.50	RISK		
34	627214.44	4266974.50	RISK		
35	627214.44	4267074.50	RISK		
36	627214.44	4267174.50	RISK		
37	627214.44	4267274.50	RISK		
38	627214.44	4267374.50	RISK		
39	627214.44	4267474.50	RISK		
40	627214.44	4267574.50	RISK		
41	627214.44	4267674.50	RISK		
42	627214.44	4267774.50	RISK		
43	627214.44	4267874.50	RISK		
44	627214.44	4267974.50	RISK		
45	627214.44	4268074.50	RISK		
46	627214.44	4268174.50	RISK		
47	627214.44	4268274.50	RISK		
48	627214.44	4268374.50	RISK		
49	627214.44	4268474.50	RISK		
50	627214.44	4268574.50	RISK		
51	627214.44	4268674.50	RISK		
52	627214.44	4268774.50	RISK		
53	627214.44	4268874.50	RISK		
54	627214.44	4268974.50	RISK		
55	627214.44	4269074.50	RISK		
56	627214.44	4269174.50	RISK		
57	627214.44	4269274.50	RISK		
58	627214.44	4269374.50	RISK		
59	627214.44	4269474.50	RISK		
60	627214.44	4269574.50	RISK		
61	627214.44	4269674.50	RISK		
62	627314.44	4263674.50	RISK		
63	627314.44	4263774.50	RISK		
64	627314.44	4263874.50	RISK		
65	627314.44	4263974.50	RISK		
66	627314.44	4264074.50	RISK		
67	627314.44	4264174.50	RISK		
68	627314.44	4264274.50	RISK		
69	627314.44	4264374.50	RISK		
70	627314.44	4264474.50	RISK		

# Receptor Pathway

AERMOD

71	627314.44	4264574.50	RISK	Option not Selected	Option not Selected
72	627314.44	4264674.50	RISK		
73	627314.44	4264774.50	RISK		
74	627314.44	4264874.50	RISK		
75	627314.44	4264974.50	RISK		
76	627314.44	4265074.50	RISK		
77	627314.44	4265174.50	RISK		
78	627314.44	4265274.50	RISK		
79	627314.44	4265374.50	RISK		
80	627314.44	4265474.50	RISK		
81	627314.44	4265574.50	RISK		
82	627314.44	4265674.50	RISK		
83	627314.44	4265774.50	RISK		
84	627314.44	4265874.50	RISK		
85	627314.44	4265974.50	RISK		
86	627314.44	4266074.50	RISK		
87	627314.44	4266174.50	RISK		
88	627314.44	4266274.50	RISK		
89	627314.44	4266374.50	RISK		
90	627314.44	4266474.50	RISK		
91	627314.44	4266574.50	RISK		
92	627314.44	4266674.50	RISK		
93	627314.44	4266774.50	RISK		
94	627314.44	4266874.50	RISK		
95	627314.44	4266974.50	RISK		
96	627314.44	4267074.50	RISK		
97	627314.44	4267174.50	RISK		
98	627314.44	4267274.50	RISK		
99	627314.44	4267374.50	RISK		
100	627314.44	4267474.50	RISK		
101	627314.44	4267574.50	RISK		
102	627314.44	4267674.50	RISK		
103	627314.44	4267774.50	RISK		
104	627314.44	4267874.50	RISK		
105	627314.44	4267974.50	RISK		
106	627314.44	4268074.50	RISK		
107	627314.44	4268174.50	RISK		
108	627314.44	4268274.50	RISK		
109	627314.44	4268374.50	RISK		
110	627314.44	4268474.50	RISK		
111	627314.44	4268574.50	RISK		

# Receptor Pathway

AERMOD

112	627314.44	4268674.50	RISK	Option not Selected	Option not Selected
113	627314.44	4268774.50	RISK		
114	627314.44	4268874.50	RISK		
115	627314.44	4268974.50	RISK		
116	627314.44	4269074.50	RISK		
117	627314.44	4269174.50	RISK		
118	627314.44	4269274.50	RISK		
119	627314.44	4269374.50	RISK		
120	627314.44	4269474.50	RISK		
121	627314.44	4269574.50	RISK		
122	627314.44	4269674.50	RISK		
123	627414.44	4263674.50	RISK		
124	627414.44	4263774.50	RISK		
125	627414.44	4263874.50	RISK		
126	627414.44	4263974.50	RISK		
127	627414.44	4264074.50	RISK		
128	627414.44	4264174.50	RISK		
129	627414.44	4264274.50	RISK		
130	627414.44	4264374.50	RISK		
131	627414.44	4264474.50	RISK		
132	627414.44	4264574.50	RISK		
133	627414.44	4264674.50	RISK		
134	627414.44	4264774.50	RISK		
135	627414.44	4264874.50	RISK		
136	627414.44	4264974.50	RISK		
137	627414.44	4265074.50	RISK		
138	627414.44	4265174.50	RISK		
139	627414.44	4265274.50	RISK		
140	627414.44	4265374.50	RISK		
141	627414.44	4265474.50	RISK		
142	627414.44	4265574.50	RISK		
143	627414.44	4265674.50	RISK		
144	627414.44	4265774.50	RISK		
145	627414.44	4265874.50	RISK		
146	627414.44	4265974.50	RISK		
147	627414.44	4266074.50	RISK		
148	627414.44	4266174.50	RISK		
149	627414.44	4266274.50	RISK		
150	627414.44	4266374.50	RISK		
151	627414.44	4266474.50	RISK		
152	627414.44	4266574.50	RISK		

# Receptor Pathway

AERMOD

153	627414.44	4266674.50	RISK	Option not Selected	Option not Selected
154	627414.44	4266774.50	RISK		
155	627414.44	4266874.50	RISK		
156	627414.44	4266974.50	RISK		
157	627414.44	4267074.50	RISK		
158	627414.44	4267174.50	RISK		
159	627414.44	4267274.50	RISK		
160	627414.44	4267374.50	RISK		
161	627414.44	4267474.50	RISK		
162	627414.44	4267574.50	RISK		
163	627414.44	4267674.50	RISK		
164	627414.44	4267774.50	RISK		
165	627414.44	4267874.50	RISK		
166	627414.44	4267974.50	RISK		
167	627414.44	4268074.50	RISK		
168	627414.44	4268174.50	RISK		
169	627414.44	4268274.50	RISK		
170	627414.44	4268374.50	RISK		
171	627414.44	4268474.50	RISK		
172	627414.44	4268574.50	RISK		
173	627414.44	4268674.50	RISK		
174	627414.44	4268774.50	RISK		
175	627414.44	4268874.50	RISK		
176	627414.44	4268974.50	RISK		
177	627414.44	4269074.50	RISK		
178	627414.44	4269174.50	RISK		
179	627414.44	4269274.50	RISK		
180	627414.44	4269374.50	RISK		
181	627414.44	4269474.50	RISK		
182	627414.44	4269574.50	RISK		
183	627414.44	4269674.50	RISK		
184	627514.44	4263674.50	RISK		
185	627514.44	4263774.50	RISK		
186	627514.44	4263874.50	RISK		
187	627514.44	4263974.50	RISK		
188	627514.44	4264074.50	RISK		
189	627514.44	4264174.50	RISK		
190	627514.44	4264274.50	RISK		
191	627514.44	4264374.50	RISK		
192	627514.44	4264474.50	RISK		
193	627514.44	4264574.50	RISK		

# Receptor Pathway

AERMOD

194	627514.44	4264674.50	RISK	Option not Selected	Option not Selected
195	627514.44	4264774.50	RISK		
196	627514.44	4264874.50	RISK		
197	627514.44	4264974.50	RISK		
198	627514.44	4265074.50	RISK		
199	627514.44	4265174.50	RISK		
200	627514.44	4265274.50	RISK		
201	627514.44	4265374.50	RISK		
202	627514.44	4265474.50	RISK		
203	627514.44	4265574.50	RISK		
204	627514.44	4265674.50	RISK		
205	627514.44	4265774.50	RISK		
206	627514.44	4265874.50	RISK		
207	627514.44	4265974.50	RISK		
208	627514.44	4266074.50	RISK		
209	627514.44	4266174.50	RISK		
210	627514.44	4266274.50	RISK		
211	627514.44	4266374.50	RISK		
212	627514.44	4266474.50	RISK		
213	627514.44	4266574.50	RISK		
214	627514.44	4266674.50	RISK		
215	627514.44	4266774.50	RISK		
216	627514.44	4266874.50	RISK		
217	627514.44	4266974.50	RISK		
218	627514.44	4267074.50	RISK		
219	627514.44	4267174.50	RISK		
220	627514.44	4267274.50	RISK		
221	627514.44	4267374.50	RISK		
222	627514.44	4267474.50	RISK		
223	627514.44	4267574.50	RISK		
224	627514.44	4267674.50	RISK		
225	627514.44	4267774.50	RISK		
226	627514.44	4267874.50	RISK		
227	627514.44	4267974.50	RISK		
228	627514.44	4268074.50	RISK		
229	627514.44	4268174.50	RISK		
230	627514.44	4268274.50	RISK		
231	627514.44	4268374.50	RISK		
232	627514.44	4268474.50	RISK		
233	627514.44	4268574.50	RISK		
234	627514.44	4268674.50	RISK		

# Receptor Pathway

AERMOD

235	627514.44	4268774.50	RISK	Option not Selected	Option not Selected
236	627514.44	4268874.50	RISK		
237	627514.44	4268974.50	RISK		
238	627514.44	4269074.50	RISK		
239	627514.44	4269174.50	RISK		
240	627514.44	4269274.50	RISK		
241	627514.44	4269374.50	RISK		
242	627514.44	4269474.50	RISK		
243	627514.44	4269574.50	RISK		
244	627514.44	4269674.50	RISK		
245	627614.44	4263674.50	RISK		
246	627614.44	4263774.50	RISK		
247	627614.44	4263874.50	RISK		
248	627614.44	4263974.50	RISK		
249	627614.44	4264074.50	RISK		
250	627614.44	4264174.50	RISK		
251	627614.44	4264274.50	RISK		
252	627614.44	4264374.50	RISK		
253	627614.44	4264474.50	RISK		
254	627614.44	4264574.50	RISK		
255	627614.44	4264674.50	RISK		
256	627614.44	4264774.50	RISK		
257	627614.44	4264874.50	RISK		
258	627614.44	4264974.50	RISK		
259	627614.44	4265074.50	RISK		
260	627614.44	4265174.50	RISK		
261	627614.44	4265274.50	RISK		
262	627614.44	4265374.50	RISK		
263	627614.44	4265474.50	RISK		
264	627614.44	4265574.50	RISK		
265	627614.44	4265674.50	RISK		
266	627614.44	4265774.50	RISK		
267	627614.44	4265874.50	RISK		
268	627614.44	4265974.50	RISK		
269	627614.44	4266074.50	RISK		
270	627614.44	4266174.50	RISK		
271	627614.44	4266274.50	RISK		
272	627614.44	4266374.50	RISK		
273	627614.44	4266474.50	RISK		
274	627614.44	4266574.50	RISK		
275	627614.44	4266674.50	RISK		

# Receptor Pathway

AERMOD

276	627614.44	4266774.50	RISK	Option not Selected	Option not Selected
277	627614.44	4266874.50	RISK		
278	627614.44	4266974.50	RISK		
279	627614.44	4267074.50	RISK		
280	627614.44	4267174.50	RISK		
281	627614.44	4267274.50	RISK		
282	627614.44	4267374.50	RISK		
283	627614.44	4267474.50	RISK		
284	627614.44	4267574.50	RISK		
285	627614.44	4267674.50	RISK		
286	627614.44	4267774.50	RISK		
287	627614.44	4267874.50	RISK		
288	627614.44	4267974.50	RISK		
289	627614.44	4268074.50	RISK		
290	627614.44	4268174.50	RISK		
291	627614.44	4268274.50	RISK		
292	627614.44	4268374.50	RISK		
293	627614.44	4268474.50	RISK		
294	627614.44	4268574.50	RISK		
295	627614.44	4268674.50	RISK		
296	627614.44	4268774.50	RISK		
297	627614.44	4268874.50	RISK		
298	627614.44	4268974.50	RISK		
299	627614.44	4269074.50	RISK		
300	627614.44	4269174.50	RISK		
301	627614.44	4269274.50	RISK		
302	627614.44	4269374.50	RISK		
303	627614.44	4269474.50	RISK		
304	627614.44	4269574.50	RISK		
305	627614.44	4269674.50	RISK		
306	627714.44	4263674.50	RISK		
307	627714.44	4263774.50	RISK		
308	627714.44	4263874.50	RISK		
309	627714.44	4263974.50	RISK		
310	627714.44	4264074.50	RISK		
311	627714.44	4264174.50	RISK		
312	627714.44	4264274.50	RISK		
313	627714.44	4264374.50	RISK		
314	627714.44	4264474.50	RISK		
315	627714.44	4264574.50	RISK		
316	627714.44	4264674.50	RISK		

# Receptor Pathway

AERMOD

317	627714.44	4264774.50	RISK	Option not Selected	Option not Selected
318	627714.44	4264874.50	RISK		
319	627714.44	4264974.50	RISK		
320	627714.44	4265074.50	RISK		
321	627714.44	4265174.50	RISK		
322	627714.44	4265274.50	RISK		
323	627714.44	4265374.50	RISK		
324	627714.44	4265474.50	RISK		
325	627714.44	4265574.50	RISK		
326	627714.44	4265674.50	RISK		
327	627714.44	4265774.50	RISK		
328	627714.44	4265874.50	RISK		
329	627714.44	4265974.50	RISK		
330	627714.44	4266074.50	RISK		
331	627714.44	4266174.50	RISK		
332	627714.44	4266274.50	RISK		
333	627714.44	4266374.50	RISK		
334	627714.44	4266474.50	RISK		
335	627714.44	4266574.50	RISK		
336	627714.44	4266674.50	RISK		
337	627714.44	4266774.50	RISK		
338	627714.44	4266874.50	RISK		
339	627714.44	4266974.50	RISK		
340	627714.44	4267074.50	RISK		
341	627714.44	4267174.50	RISK		
342	627714.44	4267274.50	RISK		
343	627714.44	4267374.50	RISK		
344	627714.44	4267474.50	RISK		
345	627714.44	4267574.50	RISK		
346	627714.44	4267674.50	RISK		
347	627714.44	4267774.50	RISK		
348	627714.44	4267874.50	RISK		
349	627714.44	4267974.50	RISK		
350	627714.44	4268074.50	RISK		
351	627714.44	4268174.50	RISK		
352	627714.44	4268274.50	RISK		
353	627714.44	4268374.50	RISK		
354	627714.44	4268474.50	RISK		
355	627714.44	4268574.50	RISK		
356	627714.44	4268674.50	RISK		
357	627714.44	4268774.50	RISK		

# Receptor Pathway

AERMOD

358	627714.44	4268874.50	RISK	Option not Selected	Option not Selected
359	627714.44	4268974.50	RISK		
360	627714.44	4269074.50	RISK		
361	627714.44	4269174.50	RISK		
362	627714.44	4269274.50	RISK		
363	627714.44	4269374.50	RISK		
364	627714.44	4269474.50	RISK		
365	627714.44	4269574.50	RISK		
366	627714.44	4269674.50	RISK		
367	627814.44	4263674.50	RISK		
368	627814.44	4263774.50	RISK		
369	627814.44	4263874.50	RISK		
370	627814.44	4263974.50	RISK		
371	627814.44	4264074.50	RISK		
372	627814.44	4264174.50	RISK		
373	627814.44	4264274.50	RISK		
374	627814.44	4264374.50	RISK		
375	627814.44	4264474.50	RISK		
376	627814.44	4264574.50	RISK		
377	627814.44	4264674.50	RISK		
378	627814.44	4264774.50	RISK		
379	627814.44	4264874.50	RISK		
380	627814.44	4264974.50	RISK		
381	627814.44	4265074.50	RISK		
382	627814.44	4265174.50	RISK		
383	627814.44	4265274.50	RISK		
384	627814.44	4265374.50	RISK		
385	627814.44	4265474.50	RISK		
386	627814.44	4265574.50	RISK		
387	627814.44	4265674.50	RISK		
388	627814.44	4265774.50	RISK		
389	627814.44	4265874.50	RISK		
390	627814.44	4265974.50	RISK		
391	627814.44	4266074.50	RISK		
392	627814.44	4266174.50	RISK		
393	627814.44	4266274.50	RISK		
394	627814.44	4266374.50	RISK		
395	627814.44	4266474.50	RISK		
396	627814.44	4266574.50	RISK		
397	627814.44	4266674.50	RISK		
398	627814.44	4266774.50	RISK		

# Receptor Pathway

AERMOD

399	627814.44	4266874.50	RISK	Option not Selected	Option not Selected
400	627814.44	4266974.50	RISK		
401	627814.44	4267074.50	RISK		
402	627814.44	4267174.50	RISK		
403	627814.44	4267274.50	RISK		
404	627814.44	4267374.50	RISK		
405	627814.44	4267474.50	RISK		
406	627814.44	4267574.50	RISK		
407	627814.44	4267674.50	RISK		
408	627814.44	4267774.50	RISK		
409	627814.44	4267874.50	RISK		
410	627814.44	4267974.50	RISK		
411	627814.44	4268074.50	RISK		
412	627814.44	4268174.50	RISK		
413	627814.44	4268274.50	RISK		
414	627814.44	4268374.50	RISK		
415	627814.44	4268474.50	RISK		
416	627814.44	4268574.50	RISK		
417	627814.44	4268674.50	RISK		
418	627814.44	4268774.50	RISK		
419	627814.44	4268874.50	RISK		
420	627814.44	4268974.50	RISK		
421	627814.44	4269074.50	RISK		
422	627814.44	4269174.50	RISK		
423	627814.44	4269274.50	RISK		
424	627814.44	4269374.50	RISK		
425	627814.44	4269474.50	RISK		
426	627814.44	4269574.50	RISK		
427	627814.44	4269674.50	RISK		
428	627914.44	4263674.50	RISK		
429	627914.44	4263774.50	RISK		
430	627914.44	4263874.50	RISK		
431	627914.44	4263974.50	RISK		
432	627914.44	4264074.50	RISK		
433	627914.44	4264174.50	RISK		
434	627914.44	4264274.50	RISK		
435	627914.44	4264374.50	RISK		
436	627914.44	4264474.50	RISK		
437	627914.44	4264574.50	RISK		
438	627914.44	4264674.50	RISK		
439	627914.44	4264774.50	RISK		

# Receptor Pathway

AERMOD

440	627914.44	4264874.50	RISK	Option not Selected	Option not Selected
441	627914.44	4264974.50	RISK		
442	627914.44	4265074.50	RISK		
443	627914.44	4265174.50	RISK		
444	627914.44	4265274.50	RISK		
445	627914.44	4265374.50	RISK		
446	627914.44	4265474.50	RISK		
447	627914.44	4265574.50	RISK		
448	627914.44	4265674.50	RISK		
449	627914.44	4265774.50	RISK		
450	627914.44	4265874.50	RISK		
451	627914.44	4265974.50	RISK		
452	627914.44	4266074.50	RISK		
453	627914.44	4266174.50	RISK		
454	627914.44	4266274.50	RISK		
455	627914.44	4266374.50	RISK		
456	627914.44	4266474.50	RISK		
457	627914.44	4266574.50	RISK		
458	627914.44	4266674.50	RISK		
459	627914.44	4266774.50	RISK		
460	627914.44	4266874.50	RISK		
461	627914.44	4266974.50	RISK		
462	627914.44	4267074.50	RISK		
463	627914.44	4267174.50	RISK		
464	627914.44	4267274.50	RISK		
465	627914.44	4267374.50	RISK		
466	627914.44	4267474.50	RISK		
467	627914.44	4267574.50	RISK		
468	627914.44	4267674.50	RISK		
469	627914.44	4267774.50	RISK		
470	627914.44	4267874.50	RISK		
471	627914.44	4267974.50	RISK		
472	627914.44	4268074.50	RISK		
473	627914.44	4268174.50	RISK		
474	627914.44	4268274.50	RISK		
475	627914.44	4268374.50	RISK		
476	627914.44	4268474.50	RISK		
477	627914.44	4268574.50	RISK		
478	627914.44	4268674.50	RISK		
479	627914.44	4268774.50	RISK		
480	627914.44	4268874.50	RISK		

# Receptor Pathway

AERMOD

481	627914.44	4268974.50	RISK	Option not Selected	Option not Selected
482	627914.44	4269074.50	RISK		
483	627914.44	4269174.50	RISK		
484	627914.44	4269274.50	RISK		
485	627914.44	4269374.50	RISK		
486	627914.44	4269474.50	RISK		
487	627914.44	4269574.50	RISK		
488	627914.44	4269674.50	RISK		
489	628014.44	4263674.50	RISK		
490	628014.44	4263774.50	RISK		
491	628014.44	4263874.50	RISK		
492	628014.44	4263974.50	RISK		
493	628014.44	4264074.50	RISK		
494	628014.44	4264174.50	RISK		
495	628014.44	4264274.50	RISK		
496	628014.44	4264374.50	RISK		
497	628014.44	4264474.50	RISK		
498	628014.44	4264574.50	RISK		
499	628014.44	4264674.50	RISK		
500	628014.44	4264774.50	RISK		
501	628014.44	4264874.50	RISK		
502	628014.44	4264974.50	RISK		
503	628014.44	4265074.50	RISK		
504	628014.44	4265174.50	RISK		
505	628014.44	4265274.50	RISK		
506	628014.44	4265374.50	RISK		
507	628014.44	4265474.50	RISK		
508	628014.44	4265574.50	RISK		
509	628014.44	4265674.50	RISK		
510	628014.44	4265774.50	RISK		
511	628014.44	4265874.50	RISK		
512	628014.44	4265974.50	RISK		
513	628014.44	4266074.50	RISK		
514	628014.44	4266174.50	RISK		
515	628014.44	4266274.50	RISK		
516	628014.44	4266374.50	RISK		
517	628014.44	4266474.50	RISK		
518	628014.44	4266574.50	RISK		
519	628014.44	4266674.50	RISK		
520	628014.44	4266774.50	RISK		
521	628014.44	4266874.50	RISK		

# Receptor Pathway

AERMOD

522	628014.44	4266974.50	RISK	Option not Selected	Option not Selected
523	628014.44	4267074.50	RISK		
524	628014.44	4267174.50	RISK		
525	628014.44	4267274.50	RISK		
526	628014.44	4267374.50	RISK		
527	628014.44	4267474.50	RISK		
528	628014.44	4267574.50	RISK		
529	628014.44	4267674.50	RISK		
530	628014.44	4267774.50	RISK		
531	628014.44	4267874.50	RISK		
532	628014.44	4267974.50	RISK		
533	628014.44	4268074.50	RISK		
534	628014.44	4268174.50	RISK		
535	628014.44	4268274.50	RISK		
536	628014.44	4268374.50	RISK		
537	628014.44	4268474.50	RISK		
538	628014.44	4268574.50	RISK		
539	628014.44	4268674.50	RISK		
540	628014.44	4268774.50	RISK		
541	628014.44	4268874.50	RISK		
542	628014.44	4268974.50	RISK		
543	628014.44	4269074.50	RISK		
544	628014.44	4269174.50	RISK		
545	628014.44	4269274.50	RISK		
546	628014.44	4269374.50	RISK		
547	628014.44	4269474.50	RISK		
548	628014.44	4269574.50	RISK		
549	628014.44	4269674.50	RISK		
550	628114.44	4263674.50	RISK		
551	628114.44	4263774.50	RISK		
552	628114.44	4263874.50	RISK		
553	628114.44	4263974.50	RISK		
554	628114.44	4264074.50	RISK		
555	628114.44	4264174.50	RISK		
556	628114.44	4264274.50	RISK		
557	628114.44	4264374.50	RISK		
558	628114.44	4264474.50	RISK		
559	628114.44	4264574.50	RISK		
560	628114.44	4264674.50	RISK		
561	628114.44	4264774.50	RISK		
562	628114.44	4264874.50	RISK		

# Receptor Pathway

AERMOD

563	628114.44	4264974.50	RISK	Option not Selected	Option not Selected
564	628114.44	4265074.50	RISK		
565	628114.44	4265174.50	RISK		
566	628114.44	4265274.50	RISK		
567	628114.44	4265374.50	RISK		
568	628114.44	4265474.50	RISK		
569	628114.44	4265574.50	RISK		
570	628114.44	4265674.50	RISK		
571	628114.44	4265774.50	RISK		
572	628114.44	4265874.50	RISK		
573	628114.44	4265974.50	RISK		
574	628114.44	4266074.50	RISK		
575	628114.44	4266174.50	RISK		
576	628114.44	4266274.50	RISK		
577	628114.44	4266374.50	RISK		
578	628114.44	4266474.50	RISK		
579	628114.44	4266574.50	RISK		
580	628114.44	4266674.50	RISK		
581	628114.44	4266774.50	RISK		
582	628114.44	4266874.50	RISK		
583	628114.44	4266974.50	RISK		
584	628114.44	4267074.50	RISK		
585	628114.44	4267174.50	RISK		
586	628114.44	4267274.50	RISK		
587	628114.44	4267374.50	RISK		
588	628114.44	4267474.50	RISK		
589	628114.44	4267574.50	RISK		
590	628114.44	4267674.50	RISK		
591	628114.44	4267774.50	RISK		
592	628114.44	4267874.50	RISK		
593	628114.44	4267974.50	RISK		
594	628114.44	4268074.50	RISK		
595	628114.44	4268174.50	RISK		
596	628114.44	4268274.50	RISK		
597	628114.44	4268374.50	RISK		
598	628114.44	4268474.50	RISK		
599	628114.44	4268574.50	RISK		
600	628114.44	4268674.50	RISK		
601	628114.44	4268774.50	RISK		
602	628114.44	4268874.50	RISK		
603	628114.44	4268974.50	RISK		

# Receptor Pathway

AERMOD

604	628114.44	4269074.50	RISK	Option not Selected	Option not Selected
605	628114.44	4269174.50	RISK		
606	628114.44	4269274.50	RISK		
607	628114.44	4269374.50	RISK		
608	628114.44	4269474.50	RISK		
609	628114.44	4269574.50	RISK		
610	628114.44	4269674.50	RISK		
611	628214.44	4263674.50	RISK		
612	628214.44	4263774.50	RISK		
613	628214.44	4263874.50	RISK		
614	628214.44	4263974.50	RISK		
615	628214.44	4264074.50	RISK		
616	628214.44	4264174.50	RISK		
617	628214.44	4264274.50	RISK		
618	628214.44	4264374.50	RISK		
619	628214.44	4264474.50	RISK		
620	628214.44	4264574.50	RISK		
621	628214.44	4264674.50	RISK		
622	628214.44	4264774.50	RISK		
623	628214.44	4264874.50	RISK		
624	628214.44	4264974.50	RISK		
625	628214.44	4265074.50	RISK		
626	628214.44	4265174.50	RISK		
627	628214.44	4265274.50	RISK		
628	628214.44	4265374.50	RISK		
629	628214.44	4265474.50	RISK		
630	628214.44	4265574.50	RISK		
631	628214.44	4265674.50	RISK		
632	628214.44	4265774.50	RISK		
633	628214.44	4265874.50	RISK		
634	628214.44	4265974.50	RISK		
635	628214.44	4266074.50	RISK		
636	628214.44	4266174.50	RISK		
637	628214.44	4266274.50	RISK		
638	628214.44	4266374.50	RISK		
639	628214.44	4266474.50	RISK		
640	628214.44	4266574.50	RISK		
641	628214.44	4266674.50	RISK		
642	628214.44	4266774.50	RISK		
643	628214.44	4266874.50	RISK		
644	628214.44	4266974.50	RISK		

# Receptor Pathway

AERMOD

645	628214.44	4267074.50	RISK	Option not Selected	Option not Selected
646	628214.44	4267174.50	RISK		
647	628214.44	4267274.50	RISK		
648	628214.44	4267374.50	RISK		
649	628214.44	4267474.50	RISK		
650	628214.44	4267574.50	RISK		
651	628214.44	4267674.50	RISK		
652	628214.44	4267774.50	RISK		
653	628214.44	4267874.50	RISK		
654	628214.44	4267974.50	RISK		
655	628214.44	4268074.50	RISK		
656	628214.44	4268174.50	RISK		
657	628214.44	4268274.50	RISK		
658	628214.44	4268374.50	RISK		
659	628214.44	4268474.50	RISK		
660	628214.44	4268574.50	RISK		
661	628214.44	4268674.50	RISK		
662	628214.44	4268774.50	RISK		
663	628214.44	4268874.50	RISK		
664	628214.44	4268974.50	RISK		
665	628214.44	4269074.50	RISK		
666	628214.44	4269174.50	RISK		
667	628214.44	4269274.50	RISK		
668	628214.44	4269374.50	RISK		
669	628214.44	4269474.50	RISK		
670	628214.44	4269574.50	RISK		
671	628214.44	4269674.50	RISK		
672	628314.44	4263674.50	RISK		
673	628314.44	4263774.50	RISK		
674	628314.44	4263874.50	RISK		
675	628314.44	4263974.50	RISK		
676	628314.44	4264074.50	RISK		
677	628314.44	4264174.50	RISK		
678	628314.44	4264274.50	RISK		
679	628314.44	4264374.50	RISK		
680	628314.44	4264474.50	RISK		
681	628314.44	4264574.50	RISK		
682	628314.44	4264674.50	RISK		
683	628314.44	4264774.50	RISK		
684	628314.44	4264874.50	RISK		
685	628314.44	4264974.50	RISK		

# Receptor Pathway

AERMOD

686	628314.44	4265074.50	RISK	Option not Selected	Option not Selected
687	628314.44	4265174.50	RISK		
688	628314.44	4265274.50	RISK		
689	628314.44	4265374.50	RISK		
690	628314.44	4265474.50	RISK		
691	628314.44	4265574.50	RISK		
692	628314.44	4265674.50	RISK		
693	628314.44	4265774.50	RISK		
694	628314.44	4265874.50	RISK		
695	628314.44	4265974.50	RISK		
696	628314.44	4266074.50	RISK		
697	628314.44	4266174.50	RISK		
698	628314.44	4266274.50	RISK		
699	628314.44	4266374.50	RISK		
700	628314.44	4266474.50	RISK		
701	628314.44	4266574.50	RISK		
702	628314.44	4266674.50	RISK		
703	628314.44	4266774.50	RISK		
704	628314.44	4266874.50	RISK		
705	628314.44	4266974.50	RISK		
706	628314.44	4267074.50	RISK		
707	628314.44	4267174.50	RISK		
708	628314.44	4267274.50	RISK		
709	628314.44	4267374.50	RISK		
710	628314.44	4267474.50	RISK		
711	628314.44	4267574.50	RISK		
712	628314.44	4267674.50	RISK		
713	628314.44	4267774.50	RISK		
714	628314.44	4267874.50	RISK		
715	628314.44	4267974.50	RISK		
716	628314.44	4268074.50	RISK		
717	628314.44	4268174.50	RISK		
718	628314.44	4268274.50	RISK		
719	628314.44	4268374.50	RISK		
720	628314.44	4268474.50	RISK		
721	628314.44	4268574.50	RISK		
722	628314.44	4268674.50	RISK		
723	628314.44	4268774.50	RISK		
724	628314.44	4268874.50	RISK		
725	628314.44	4268974.50	RISK		
726	628314.44	4269074.50	RISK		

# Receptor Pathway

AERMOD

727	628314.44	4269174.50	RISK	Option not Selected	Option not Selected
728	628314.44	4269274.50	RISK		
729	628314.44	4269374.50	RISK		
730	628314.44	4269474.50	RISK		
731	628314.44	4269574.50	RISK		
732	628314.44	4269674.50	RISK		
733	628414.44	4263674.50	RISK		
734	628414.44	4263774.50	RISK		
735	628414.44	4263874.50	RISK		
736	628414.44	4263974.50	RISK		
737	628414.44	4264074.50	RISK		
738	628414.44	4264174.50	RISK		
739	628414.44	4264274.50	RISK		
740	628414.44	4264374.50	RISK		
741	628414.44	4264474.50	RISK		
742	628414.44	4264574.50	RISK		
743	628414.44	4264674.50	RISK		
744	628414.44	4264774.50	RISK		
745	628414.44	4264874.50	RISK		
746	628414.44	4264974.50	RISK		
747	628414.44	4265074.50	RISK		
748	628414.44	4265174.50	RISK		
749	628414.44	4265274.50	RISK		
750	628414.44	4265374.50	RISK		
751	628414.44	4265474.50	RISK		
752	628414.44	4265574.50	RISK		
753	628414.44	4265674.50	RISK		
754	628414.44	4265774.50	RISK		
755	628414.44	4265874.50	RISK		
756	628414.44	4265974.50	RISK		
757	628414.44	4266074.50	RISK		
758	628414.44	4266174.50	RISK		
759	628414.44	4266274.50	RISK		
760	628414.44	4266374.50	RISK		
761	628414.44	4266474.50	RISK		
762	628414.44	4266574.50	RISK		
763	628414.44	4266674.50	RISK		
764	628414.44	4266774.50	RISK		
765	628414.44	4266874.50	RISK		
766	628414.44	4266974.50	RISK		
767	628414.44	4267074.50	RISK		

# Receptor Pathway

AERMOD

768	628414.44	4267174.50	RISK	Option not Selected	Option not Selected
769	628414.44	4267274.50	RISK		
770	628414.44	4267374.50	RISK		
771	628414.44	4267474.50	RISK		
772	628414.44	4267574.50	RISK		
773	628414.44	4267674.50	RISK		
774	628414.44	4267774.50	RISK		
775	628414.44	4267874.50	RISK		
776	628414.44	4267974.50	RISK		
777	628414.44	4268074.50	RISK		
778	628414.44	4268174.50	RISK		
779	628414.44	4268274.50	RISK		
780	628414.44	4268374.50	RISK		
781	628414.44	4268474.50	RISK		
782	628414.44	4268574.50	RISK		
783	628414.44	4268674.50	RISK		
784	628414.44	4268774.50	RISK		
785	628414.44	4268874.50	RISK		
786	628414.44	4268974.50	RISK		
787	628414.44	4269074.50	RISK		
788	628414.44	4269174.50	RISK		
789	628414.44	4269274.50	RISK		
790	628414.44	4269374.50	RISK		
791	628414.44	4269474.50	RISK		
792	628414.44	4269574.50	RISK		
793	628414.44	4269674.50	RISK		
794	628514.44	4263674.50	RISK		
795	628514.44	4263774.50	RISK		
796	628514.44	4263874.50	RISK		
797	628514.44	4263974.50	RISK		
798	628514.44	4264074.50	RISK		
799	628514.44	4264174.50	RISK		
800	628514.44	4264274.50	RISK		
801	628514.44	4264374.50	RISK		
802	628514.44	4264474.50	RISK		
803	628514.44	4264574.50	RISK		
804	628514.44	4264674.50	RISK		
805	628514.44	4264774.50	RISK		
806	628514.44	4264874.50	RISK		
807	628514.44	4264974.50	RISK		
808	628514.44	4265074.50	RISK		

# Receptor Pathway

AERMOD

809	628514.44	4265174.50	RISK	Option not Selected	Option not Selected
810	628514.44	4265274.50	RISK		
811	628514.44	4265374.50	RISK		
812	628514.44	4265474.50	RISK		
813	628514.44	4265574.50	RISK		
814	628514.44	4265674.50	RISK		
815	628514.44	4265774.50	RISK		
816	628514.44	4265874.50	RISK		
817	628514.44	4265974.50	RISK		
818	628514.44	4266074.50	RISK		
819	628514.44	4266174.50	RISK		
820	628514.44	4266274.50	RISK		
821	628514.44	4266374.50	RISK		
822	628514.44	4266474.50	RISK		
823	628514.44	4266574.50	RISK		
824	628514.44	4266674.50	RISK		
825	628514.44	4266774.50	RISK		
826	628514.44	4266874.50	RISK		
827	628514.44	4266974.50	RISK		
828	628514.44	4267074.50	RISK		
829	628514.44	4267174.50	RISK		
830	628514.44	4267274.50	RISK		
831	628514.44	4267374.50	RISK		
832	628514.44	4267474.50	RISK		
833	628514.44	4267574.50	RISK		
834	628514.44	4267674.50	RISK		
835	628514.44	4267774.50	RISK		
836	628514.44	4267874.50	RISK		
837	628514.44	4267974.50	RISK		
838	628514.44	4268074.50	RISK		
839	628514.44	4268174.50	RISK		
840	628514.44	4268274.50	RISK		
841	628514.44	4268374.50	RISK		
842	628514.44	4268474.50	RISK		
843	628514.44	4268574.50	RISK		
844	628514.44	4268674.50	RISK		
845	628514.44	4268774.50	RISK		
846	628514.44	4268874.50	RISK		
847	628514.44	4268974.50	RISK		
848	628514.44	4269074.50	RISK		
849	628514.44	4269174.50	RISK		

# Receptor Pathway

AERMOD

850	628514.44	4269274.50	RISK	Option not Selected	Option not Selected
851	628514.44	4269374.50	RISK		
852	628514.44	4269474.50	RISK		
853	628514.44	4269574.50	RISK		
854	628514.44	4269674.50	RISK		
855	628614.44	4263674.50	RISK		
856	628614.44	4263774.50	RISK		
857	628614.44	4263874.50	RISK		
858	628614.44	4263974.50	RISK		
859	628614.44	4264074.50	RISK		
860	628614.44	4264174.50	RISK		
861	628614.44	4264274.50	RISK		
862	628614.44	4264374.50	RISK		
863	628614.44	4264474.50	RISK		
864	628614.44	4264574.50	RISK		
865	628614.44	4264674.50	RISK		
866	628614.44	4264774.50	RISK		
867	628614.44	4264874.50	RISK		
868	628614.44	4264974.50	RISK		
869	628614.44	4265074.50	RISK		
870	628614.44	4265174.50	RISK		
871	628614.44	4265274.50	RISK		
872	628614.44	4265374.50	RISK		
873	628614.44	4265474.50	RISK		
874	628614.44	4265574.50	RISK		
875	628614.44	4265674.50	RISK		
876	628614.44	4265774.50	RISK		
877	628614.44	4265874.50	RISK		
878	628614.44	4265974.50	RISK		
879	628614.44	4266074.50	RISK		
880	628614.44	4266174.50	RISK		
881	628614.44	4266274.50	RISK		
882	628614.44	4266374.50	RISK		
883	628614.44	4266474.50	RISK		
884	628614.44	4266574.50	RISK		
885	628614.44	4266674.50	RISK		
886	628614.44	4266774.50	RISK		
887	628614.44	4266874.50	RISK		
888	628614.44	4266974.50	RISK		
889	628614.44	4267074.50	RISK		
890	628614.44	4267174.50	RISK		

# Receptor Pathway

AERMOD

891	628614.44	4267274.50	RISK	Option not Selected	Option not Selected
892	628614.44	4267374.50	RISK		
893	628614.44	4267474.50	RISK		
894	628614.44	4267574.50	RISK		
895	628614.44	4267674.50	RISK		
896	628614.44	4267774.50	RISK		
897	628614.44	4267874.50	RISK		
898	628614.44	4267974.50	RISK		
899	628614.44	4268074.50	RISK		
900	628614.44	4268174.50	RISK		
901	628614.44	4268274.50	RISK		
902	628614.44	4268374.50	RISK		
903	628614.44	4268474.50	RISK		
904	628614.44	4268574.50	RISK		
905	628614.44	4268674.50	RISK		
906	628614.44	4268774.50	RISK		
907	628614.44	4268874.50	RISK		
908	628614.44	4268974.50	RISK		
909	628614.44	4269074.50	RISK		
910	628614.44	4269174.50	RISK		
911	628614.44	4269274.50	RISK		
912	628614.44	4269374.50	RISK		
913	628614.44	4269474.50	RISK		
914	628614.44	4269574.50	RISK		
915	628614.44	4269674.50	RISK		
916	628714.44	4263674.50	RISK		
917	628714.44	4263774.50	RISK		
918	628714.44	4263874.50	RISK		
919	628714.44	4263974.50	RISK		
920	628714.44	4264074.50	RISK		
921	628714.44	4264174.50	RISK		
922	628714.44	4264274.50	RISK		
923	628714.44	4264374.50	RISK		
924	628714.44	4264474.50	RISK		
925	628714.44	4264574.50	RISK		
926	628714.44	4264674.50	RISK		
927	628714.44	4264774.50	RISK		
928	628714.44	4264874.50	RISK		
929	628714.44	4264974.50	RISK		
930	628714.44	4265074.50	RISK		
931	628714.44	4265174.50	RISK		

# Receptor Pathway

AERMOD

932	628714.44	4265274.50	RISK	Option not Selected	Option not Selected
933	628714.44	4265374.50	RISK		
934	628714.44	4265474.50	RISK		
935	628714.44	4265574.50	RISK		
936	628714.44	4265674.50	RISK		
937	628714.44	4265774.50	RISK		
938	628714.44	4265874.50	RISK		
939	628714.44	4265974.50	RISK		
940	628714.44	4266074.50	RISK		
941	628714.44	4266174.50	RISK		
942	628714.44	4266274.50	RISK		
943	628714.44	4266374.50	RISK		
944	628714.44	4266474.50	RISK		
945	628714.44	4266574.50	RISK		
946	628714.44	4266674.50	RISK		
947	628714.44	4266774.50	RISK		
948	628714.44	4266874.50	RISK		
949	628714.44	4266974.50	RISK		
950	628714.44	4267074.50	RISK		
951	628714.44	4267174.50	RISK		
952	628714.44	4267274.50	RISK		
953	628714.44	4267374.50	RISK		
954	628714.44	4267474.50	RISK		
955	628714.44	4267574.50	RISK		
956	628714.44	4267674.50	RISK		
957	628714.44	4267774.50	RISK		
958	628714.44	4267874.50	RISK		
959	628714.44	4267974.50	RISK		
960	628714.44	4268074.50	RISK		
961	628714.44	4268174.50	RISK		
962	628714.44	4268274.50	RISK		
963	628714.44	4268374.50	RISK		
964	628714.44	4268474.50	RISK		
965	628714.44	4268574.50	RISK		
966	628714.44	4268674.50	RISK		
967	628714.44	4268774.50	RISK		
968	628714.44	4268874.50	RISK		
969	628714.44	4268974.50	RISK		
970	628714.44	4269074.50	RISK		
971	628714.44	4269174.50	RISK		
972	628714.44	4269274.50	RISK		

# Receptor Pathway

AERMOD

973	628714.44	4269374.50	RISK	Option not Selected	Option not Selected
974	628714.44	4269474.50	RISK		
975	628714.44	4269574.50	RISK		
976	628714.44	4269674.50	RISK		
977	628814.44	4263674.50	RISK		
978	628814.44	4263774.50	RISK		
979	628814.44	4263874.50	RISK		
980	628814.44	4263974.50	RISK		
981	628814.44	4264074.50	RISK		
982	628814.44	4264174.50	RISK		
983	628814.44	4264274.50	RISK		
984	628814.44	4264374.50	RISK		
985	628814.44	4264474.50	RISK		
986	628814.44	4264574.50	RISK		
987	628814.44	4264674.50	RISK		
988	628814.44	4264774.50	RISK		
989	628814.44	4264874.50	RISK		
990	628814.44	4264974.50	RISK		
991	628814.44	4265074.50	RISK		
992	628814.44	4265174.50	RISK		
993	628814.44	4265274.50	RISK		
994	628814.44	4265374.50	RISK		
995	628814.44	4265474.50	RISK		
996	628814.44	4265574.50	RISK		
997	628814.44	4265674.50	RISK		
998	628814.44	4265774.50	RISK		
999	628814.44	4265874.50	RISK		
1,000	628814.44	4265974.50	RISK		
1,001	628814.44	4266074.50	RISK		
1,002	628814.44	4266174.50	RISK		
1,003	628814.44	4266274.50	RISK		
1,004	628814.44	4266374.50	RISK		
1,005	628814.44	4266474.50	RISK		
1,006	628814.44	4266574.50	RISK		
1,007	628814.44	4266674.50	RISK		
1,008	628814.44	4266774.50	RISK		
1,009	628814.44	4266874.50	RISK		
1,010	628814.44	4266974.50	RISK		
1,011	628814.44	4267074.50	RISK		
1,012	628814.44	4267174.50	RISK		
1,013	628814.44	4267274.50	RISK		

# Receptor Pathway

AERMOD

1,014	628814.44	4267374.50	RISK	Option not Selected	Option not Selected
1,015	628814.44	4267474.50	RISK		
1,016	628814.44	4267574.50	RISK		
1,017	628814.44	4267674.50	RISK		
1,018	628814.44	4267774.50	RISK		
1,019	628814.44	4267874.50	RISK		
1,020	628814.44	4267974.50	RISK		
1,021	628814.44	4268074.50	RISK		
1,022	628814.44	4268174.50	RISK		
1,023	628814.44	4268274.50	RISK		
1,024	628814.44	4268374.50	RISK		
1,025	628814.44	4268474.50	RISK		
1,026	628814.44	4268574.50	RISK		
1,027	628814.44	4268674.50	RISK		
1,028	628814.44	4268774.50	RISK		
1,029	628814.44	4268874.50	RISK		
1,030	628814.44	4268974.50	RISK		
1,031	628814.44	4269074.50	RISK		
1,032	628814.44	4269174.50	RISK		
1,033	628814.44	4269274.50	RISK		
1,034	628814.44	4269374.50	RISK		
1,035	628814.44	4269474.50	RISK		
1,036	628814.44	4269574.50	RISK		
1,037	628814.44	4269674.50	RISK		
1,038	628914.44	4263674.50	RISK		
1,039	628914.44	4263774.50	RISK		
1,040	628914.44	4263874.50	RISK		
1,041	628914.44	4263974.50	RISK		
1,042	628914.44	4264074.50	RISK		
1,043	628914.44	4264174.50	RISK		
1,044	628914.44	4264274.50	RISK		
1,045	628914.44	4264374.50	RISK		
1,046	628914.44	4264474.50	RISK		
1,047	628914.44	4264574.50	RISK		
1,048	628914.44	4264674.50	RISK		
1,049	628914.44	4264774.50	RISK		
1,050	628914.44	4264874.50	RISK		
1,051	628914.44	4264974.50	RISK		
1,052	628914.44	4265074.50	RISK		
1,053	628914.44	4265174.50	RISK		
1,054	628914.44	4265274.50	RISK		

# Receptor Pathway

AERMOD

1,055	628914.44	4265374.50	RISK	Option not Selected	Option not Selected
1,056	628914.44	4265474.50	RISK		
1,057	628914.44	4265574.50	RISK		
1,058	628914.44	4265674.50	RISK		
1,059	628914.44	4265774.50	RISK		
1,060	628914.44	4265874.50	RISK		
1,061	628914.44	4265974.50	RISK		
1,062	628914.44	4266074.50	RISK		
1,063	628914.44	4266174.50	RISK		
1,064	628914.44	4266274.50	RISK		
1,065	628914.44	4266374.50	RISK		
1,066	628914.44	4266474.50	RISK		
1,067	628914.44	4266574.50	RISK		
1,068	628914.44	4266674.50	RISK		
1,069	628914.44	4266774.50	RISK		
1,070	628914.44	4266874.50	RISK		
1,071	628914.44	4266974.50	RISK		
1,072	628914.44	4267074.50	RISK		
1,073	628914.44	4267174.50	RISK		
1,074	628914.44	4267274.50	RISK		
1,075	628914.44	4267374.50	RISK		
1,076	628914.44	4267474.50	RISK		
1,077	628914.44	4267574.50	RISK		
1,078	628914.44	4267674.50	RISK		
1,079	628914.44	4267774.50	RISK		
1,080	628914.44	4267874.50	RISK		
1,081	628914.44	4267974.50	RISK		
1,082	628914.44	4268074.50	RISK		
1,083	628914.44	4268174.50	RISK		
1,084	628914.44	4268274.50	RISK		
1,085	628914.44	4268374.50	RISK		
1,086	628914.44	4268474.50	RISK		
1,087	628914.44	4268574.50	RISK		
1,088	628914.44	4268674.50	RISK		
1,089	628914.44	4268774.50	RISK		
1,090	628914.44	4268874.50	RISK		
1,091	628914.44	4268974.50	RISK		
1,092	628914.44	4269074.50	RISK		
1,093	628914.44	4269174.50	RISK		
1,094	628914.44	4269274.50	RISK		
1,095	628914.44	4269374.50	RISK		

# Receptor Pathway

AERMOD

1,096	628914.44	4269474.50	RISK	Option not Selected	Option not Selected
1,097	628914.44	4269574.50	RISK		
1,098	628914.44	4269674.50	RISK		
1,099	629014.44	4263674.50	RISK		
1,100	629014.44	4263774.50	RISK		
1,101	629014.44	4263874.50	RISK		
1,102	629014.44	4263974.50	RISK		
1,103	629014.44	4264074.50	RISK		
1,104	629014.44	4264174.50	RISK		
1,105	629014.44	4264274.50	RISK		
1,106	629014.44	4264374.50	RISK		
1,107	629014.44	4264474.50	RISK		
1,108	629014.44	4264574.50	RISK		
1,109	629014.44	4264674.50	RISK		
1,110	629014.44	4264774.50	RISK		
1,111	629014.44	4264874.50	RISK		
1,112	629014.44	4264974.50	RISK		
1,113	629014.44	4265074.50	RISK		
1,114	629014.44	4265174.50	RISK		
1,115	629014.44	4265274.50	RISK		
1,116	629014.44	4265374.50	RISK		
1,117	629014.44	4265474.50	RISK		
1,118	629014.44	4265574.50	RISK		
1,119	629014.44	4265674.50	RISK		
1,120	629014.44	4265774.50	RISK		
1,121	629014.44	4265874.50	RISK		
1,122	629014.44	4265974.50	RISK		
1,123	629014.44	4266074.50	RISK		
1,124	629014.44	4266174.50	RISK		
1,125	629014.44	4266274.50	RISK		
1,126	629014.44	4266374.50	RISK		
1,127	629014.44	4266474.50	RISK		
1,128	629014.44	4266574.50	RISK		
1,129	629014.44	4266674.50	RISK		
1,130	629014.44	4266774.50	RISK		
1,131	629014.44	4266874.50	RISK		
1,132	629014.44	4266974.50	RISK		
1,133	629014.44	4267074.50	RISK		
1,134	629014.44	4267174.50	RISK		
1,135	629014.44	4267274.50	RISK		
1,136	629014.44	4267374.50	RISK		

# Receptor Pathway

AERMOD

1,137	629014.44	4267474.50	RISK	Option not Selected	Option not Selected
1,138	629014.44	4267574.50	RISK		
1,139	629014.44	4267674.50	RISK		
1,140	629014.44	4267774.50	RISK		
1,141	629014.44	4267874.50	RISK		
1,142	629014.44	4267974.50	RISK		
1,143	629014.44	4268074.50	RISK		
1,144	629014.44	4268174.50	RISK		
1,145	629014.44	4268274.50	RISK		
1,146	629014.44	4268374.50	RISK		
1,147	629014.44	4268474.50	RISK		
1,148	629014.44	4268574.50	RISK		
1,149	629014.44	4268674.50	RISK		
1,150	629014.44	4268774.50	RISK		
1,151	629014.44	4268874.50	RISK		
1,152	629014.44	4268974.50	RISK		
1,153	629014.44	4269074.50	RISK		
1,154	629014.44	4269174.50	RISK		
1,155	629014.44	4269274.50	RISK		
1,156	629014.44	4269374.50	RISK		
1,157	629014.44	4269474.50	RISK		
1,158	629014.44	4269574.50	RISK		
1,159	629014.44	4269674.50	RISK		
1,160	629114.44	4263674.50	RISK		
1,161	629114.44	4263774.50	RISK		
1,162	629114.44	4263874.50	RISK		
1,163	629114.44	4263974.50	RISK		
1,164	629114.44	4264074.50	RISK		
1,165	629114.44	4264174.50	RISK		
1,166	629114.44	4264274.50	RISK		
1,167	629114.44	4264374.50	RISK		
1,168	629114.44	4264474.50	RISK		
1,169	629114.44	4264574.50	RISK		
1,170	629114.44	4264674.50	RISK		
1,171	629114.44	4264774.50	RISK		
1,172	629114.44	4264874.50	RISK		
1,173	629114.44	4264974.50	RISK		
1,174	629114.44	4265074.50	RISK		
1,175	629114.44	4265174.50	RISK		
1,176	629114.44	4265274.50	RISK		
1,177	629114.44	4265374.50	RISK		

# Receptor Pathway

AERMOD

1,178	629114.44	4265474.50	RISK	Option not Selected	Option not Selected
1,179	629114.44	4265574.50	RISK		
1,180	629114.44	4265674.50	RISK		
1,181	629114.44	4265774.50	RISK		
1,182	629114.44	4265874.50	RISK		
1,183	629114.44	4265974.50	RISK		
1,184	629114.44	4266074.50	RISK		
1,185	629114.44	4266174.50	RISK		
1,186	629114.44	4266274.50	RISK		
1,187	629114.44	4266374.50	RISK		
1,188	629114.44	4266474.50	RISK		
1,189	629114.44	4266574.50	RISK		
1,190	629114.44	4266674.50	RISK		
1,191	629114.44	4266774.50	RISK		
1,192	629114.44	4266874.50	RISK		
1,193	629114.44	4266974.50	RISK		
1,194	629114.44	4267074.50	RISK		
1,195	629114.44	4267174.50	RISK		
1,196	629114.44	4267274.50	RISK		
1,197	629114.44	4267374.50	RISK		
1,198	629114.44	4267474.50	RISK		
1,199	629114.44	4267574.50	RISK		
1,200	629114.44	4267674.50	RISK		
1,201	629114.44	4267774.50	RISK		
1,202	629114.44	4267874.50	RISK		
1,203	629114.44	4267974.50	RISK		
1,204	629114.44	4268074.50	RISK		
1,205	629114.44	4268174.50	RISK		
1,206	629114.44	4268274.50	RISK		
1,207	629114.44	4268374.50	RISK		
1,208	629114.44	4268474.50	RISK		
1,209	629114.44	4268574.50	RISK		
1,210	629114.44	4268674.50	RISK		
1,211	629114.44	4268774.50	RISK		
1,212	629114.44	4268874.50	RISK		
1,213	629114.44	4268974.50	RISK		
1,214	629114.44	4269074.50	RISK		
1,215	629114.44	4269174.50	RISK		
1,216	629114.44	4269274.50	RISK		
1,217	629114.44	4269374.50	RISK		
1,218	629114.44	4269474.50	RISK		

# Receptor Pathway

AERMOD

1,219	629114.44	4269574.50	RISK	Option not Selected	Option not Selected
1,220	629114.44	4269674.50	RISK		
1,221	629214.44	4263674.50	RISK		
1,222	629214.44	4263774.50	RISK		
1,223	629214.44	4263874.50	RISK		
1,224	629214.44	4263974.50	RISK		
1,225	629214.44	4264074.50	RISK		
1,226	629214.44	4264174.50	RISK		
1,227	629214.44	4264274.50	RISK		
1,228	629214.44	4264374.50	RISK		
1,229	629214.44	4264474.50	RISK		
1,230	629214.44	4264574.50	RISK		
1,231	629214.44	4264674.50	RISK		
1,232	629214.44	4264774.50	RISK		
1,233	629214.44	4264874.50	RISK		
1,234	629214.44	4264974.50	RISK		
1,235	629214.44	4265074.50	RISK		
1,236	629214.44	4265174.50	RISK		
1,237	629214.44	4265274.50	RISK		
1,238	629214.44	4265374.50	RISK		
1,239	629214.44	4265474.50	RISK		
1,240	629214.44	4265574.50	RISK		
1,241	629214.44	4265674.50	RISK		
1,242	629214.44	4265774.50	RISK		
1,243	629214.44	4265874.50	RISK		
1,244	629214.44	4265974.50	RISK		
1,245	629214.44	4266074.50	RISK		
1,246	629214.44	4266174.50	RISK		
1,247	629214.44	4266274.50	RISK		
1,248	629214.44	4266374.50	RISK		
1,249	629214.44	4266474.50	RISK		
1,250	629214.44	4266574.50	RISK		
1,251	629214.44	4266674.50	RISK		
1,252	629214.44	4266774.50	RISK		
1,253	629214.44	4266874.50	RISK		
1,254	629214.44	4266974.50	RISK		
1,255	629214.44	4267074.50	RISK		
1,256	629214.44	4267174.50	RISK		
1,257	629214.44	4267274.50	RISK		
1,258	629214.44	4267374.50	RISK		
1,259	629214.44	4267474.50	RISK		

# Receptor Pathway

AERMOD

1,260	629214.44	4267574.50	RISK	Option not Selected	Option not Selected
1,261	629214.44	4267674.50	RISK		
1,262	629214.44	4267774.50	RISK		
1,263	629214.44	4267874.50	RISK		
1,264	629214.44	4267974.50	RISK		
1,265	629214.44	4268074.50	RISK		
1,266	629214.44	4268174.50	RISK		
1,267	629214.44	4268274.50	RISK		
1,268	629214.44	4268374.50	RISK		
1,269	629214.44	4268474.50	RISK		
1,270	629214.44	4268574.50	RISK		
1,271	629214.44	4268674.50	RISK		
1,272	629214.44	4268774.50	RISK		
1,273	629214.44	4268874.50	RISK		
1,274	629214.44	4268974.50	RISK		
1,275	629214.44	4269074.50	RISK		
1,276	629214.44	4269174.50	RISK		
1,277	629214.44	4269274.50	RISK		
1,278	629214.44	4269374.50	RISK		
1,279	629214.44	4269474.50	RISK		
1,280	629214.44	4269574.50	RISK		
1,281	629214.44	4269674.50	RISK		
1,282	629314.44	4263674.50	RISK		
1,283	629314.44	4263774.50	RISK		
1,284	629314.44	4263874.50	RISK		
1,285	629314.44	4263974.50	RISK		
1,286	629314.44	4264074.50	RISK		
1,287	629314.44	4264174.50	RISK		
1,288	629314.44	4264274.50	RISK		
1,289	629314.44	4264374.50	RISK		
1,290	629314.44	4264474.50	RISK		
1,291	629314.44	4264574.50	RISK		
1,292	629314.44	4264674.50	RISK		
1,293	629314.44	4264774.50	RISK		
1,294	629314.44	4264874.50	RISK		
1,295	629314.44	4264974.50	RISK		
1,296	629314.44	4265074.50	RISK		
1,297	629314.44	4265174.50	RISK		
1,298	629314.44	4265274.50	RISK		
1,299	629314.44	4265374.50	RISK		
1,300	629314.44	4265474.50	RISK		

# Receptor Pathway

AERMOD

1,301	629314.44	4265574.50	RISK	Option not Selected	Option not Selected
1,302	629314.44	4265674.50	RISK		
1,303	629314.44	4265774.50	RISK		
1,304	629314.44	4265874.50	RISK		
1,305	629314.44	4265974.50	RISK		
1,306	629314.44	4266074.50	RISK		
1,307	629314.44	4266174.50	RISK		
1,308	629314.44	4266274.50	RISK		
1,309	629314.44	4266374.50	RISK		
1,310	629314.44	4266474.50	RISK		
1,311	629314.44	4266574.50	RISK		
1,312	629314.44	4266674.50	RISK		
1,313	629314.44	4266774.50	RISK		
1,314	629314.44	4266874.50	RISK		
1,315	629314.44	4266974.50	RISK		
1,316	629314.44	4267074.50	RISK		
1,317	629314.44	4267174.50	RISK		
1,318	629314.44	4267274.50	RISK		
1,319	629314.44	4267374.50	RISK		
1,320	629314.44	4267474.50	RISK		
1,321	629314.44	4267574.50	RISK		
1,322	629314.44	4267674.50	RISK		
1,323	629314.44	4267774.50	RISK		
1,324	629314.44	4267874.50	RISK		
1,325	629314.44	4267974.50	RISK		
1,326	629314.44	4268074.50	RISK		
1,327	629314.44	4268174.50	RISK		
1,328	629314.44	4268274.50	RISK		
1,329	629314.44	4268374.50	RISK		
1,330	629314.44	4268474.50	RISK		
1,331	629314.44	4268574.50	RISK		
1,332	629314.44	4268674.50	RISK		
1,333	629314.44	4268774.50	RISK		
1,334	629314.44	4268874.50	RISK		
1,335	629314.44	4268974.50	RISK		
1,336	629314.44	4269074.50	RISK		
1,337	629314.44	4269174.50	RISK		
1,338	629314.44	4269274.50	RISK		
1,339	629314.44	4269374.50	RISK		
1,340	629314.44	4269474.50	RISK		
1,341	629314.44	4269574.50	RISK		

# Receptor Pathway

AERMOD

1,342	629314.44	4269674.50	RISK	Option not Selected	Option not Selected
1,343	629414.44	4263674.50	RISK		
1,344	629414.44	4263774.50	RISK		
1,345	629414.44	4263874.50	RISK		
1,346	629414.44	4263974.50	RISK		
1,347	629414.44	4264074.50	RISK		
1,348	629414.44	4264174.50	RISK		
1,349	629414.44	4264274.50	RISK		
1,350	629414.44	4264374.50	RISK		
1,351	629414.44	4264474.50	RISK		
1,352	629414.44	4264574.50	RISK		
1,353	629414.44	4264674.50	RISK		
1,354	629414.44	4264774.50	RISK		
1,355	629414.44	4264874.50	RISK		
1,356	629414.44	4264974.50	RISK		
1,357	629414.44	4265074.50	RISK		
1,358	629414.44	4265174.50	RISK		
1,359	629414.44	4265274.50	RISK		
1,360	629414.44	4265374.50	RISK		
1,361	629414.44	4265474.50	RISK		
1,362	629414.44	4265574.50	RISK		
1,363	629414.44	4265674.50	RISK		
1,364	629414.44	4265774.50	RISK		
1,365	629414.44	4265874.50	RISK		
1,366	629414.44	4265974.50	RISK		
1,367	629414.44	4266074.50	RISK		
1,368	629414.44	4266174.50	RISK		
1,369	629414.44	4266274.50	RISK		
1,370	629414.44	4266374.50	RISK		
1,371	629414.44	4266474.50	RISK		
1,372	629414.44	4266574.50	RISK		
1,373	629414.44	4266674.50	RISK		
1,374	629414.44	4266774.50	RISK		
1,375	629414.44	4266874.50	RISK		
1,376	629414.44	4266974.50	RISK		
1,377	629414.44	4267074.50	RISK		
1,378	629414.44	4267174.50	RISK		
1,379	629414.44	4267274.50	RISK		
1,380	629414.44	4267374.50	RISK		
1,381	629414.44	4267474.50	RISK		
1,382	629414.44	4267574.50	RISK		

# Receptor Pathway

AERMOD

1,383	629414.44	4267674.50	RISK	Option not Selected	Option not Selected
1,384	629414.44	4267774.50	RISK		
1,385	629414.44	4267874.50	RISK		
1,386	629414.44	4267974.50	RISK		
1,387	629414.44	4268074.50	RISK		
1,388	629414.44	4268174.50	RISK		
1,389	629414.44	4268274.50	RISK		
1,390	629414.44	4268374.50	RISK		
1,391	629414.44	4268474.50	RISK		
1,392	629414.44	4268574.50	RISK		
1,393	629414.44	4268674.50	RISK		
1,394	629414.44	4268774.50	RISK		
1,395	629414.44	4268874.50	RISK		
1,396	629414.44	4268974.50	RISK		
1,397	629414.44	4269074.50	RISK		
1,398	629414.44	4269174.50	RISK		
1,399	629414.44	4269274.50	RISK		
1,400	629414.44	4269374.50	RISK		
1,401	629414.44	4269474.50	RISK		
1,402	629414.44	4269574.50	RISK		
1,403	629414.44	4269674.50	RISK		
1,404	629514.44	4263674.50	RISK		
1,405	629514.44	4263774.50	RISK		
1,406	629514.44	4263874.50	RISK		
1,407	629514.44	4263974.50	RISK		
1,408	629514.44	4264074.50	RISK		
1,409	629514.44	4264174.50	RISK		
1,410	629514.44	4264274.50	RISK		
1,411	629514.44	4264374.50	RISK		
1,412	629514.44	4264474.50	RISK		
1,413	629514.44	4264574.50	RISK		
1,414	629514.44	4264674.50	RISK		
1,415	629514.44	4264774.50	RISK		
1,416	629514.44	4264874.50	RISK		
1,417	629514.44	4264974.50	RISK		
1,418	629514.44	4265074.50	RISK		
1,419	629514.44	4265174.50	RISK		
1,420	629514.44	4265274.50	RISK		
1,421	629514.44	4265374.50	RISK		
1,422	629514.44	4265474.50	RISK		
1,423	629514.44	4265574.50	RISK		

# Receptor Pathway

AERMOD

1,424	629514.44	4265674.50	RISK	Option not Selected	Option not Selected
1,425	629514.44	4265774.50	RISK		
1,426	629514.44	4265874.50	RISK		
1,427	629514.44	4265974.50	RISK		
1,428	629514.44	4266074.50	RISK		
1,429	629514.44	4266174.50	RISK		
1,430	629514.44	4266274.50	RISK		
1,431	629514.44	4266374.50	RISK		
1,432	629514.44	4266474.50	RISK		
1,433	629514.44	4266574.50	RISK		
1,434	629514.44	4266674.50	RISK		
1,435	629514.44	4266774.50	RISK		
1,436	629514.44	4266874.50	RISK		
1,437	629514.44	4266974.50	RISK		
1,438	629514.44	4267074.50	RISK		
1,439	629514.44	4267174.50	RISK		
1,440	629514.44	4267274.50	RISK		
1,441	629514.44	4267374.50	RISK		
1,442	629514.44	4267474.50	RISK		
1,443	629514.44	4267574.50	RISK		
1,444	629514.44	4267674.50	RISK		
1,445	629514.44	4267774.50	RISK		
1,446	629514.44	4267874.50	RISK		
1,447	629514.44	4267974.50	RISK		
1,448	629514.44	4268074.50	RISK		
1,449	629514.44	4268174.50	RISK		
1,450	629514.44	4268274.50	RISK		
1,451	629514.44	4268374.50	RISK		
1,452	629514.44	4268474.50	RISK		
1,453	629514.44	4268574.50	RISK		
1,454	629514.44	4268674.50	RISK		
1,455	629514.44	4268774.50	RISK		
1,456	629514.44	4268874.50	RISK		
1,457	629514.44	4268974.50	RISK		
1,458	629514.44	4269074.50	RISK		
1,459	629514.44	4269174.50	RISK		
1,460	629514.44	4269274.50	RISK		
1,461	629514.44	4269374.50	RISK		
1,462	629514.44	4269474.50	RISK		
1,463	629514.44	4269574.50	RISK		
1,464	629514.44	4269674.50	RISK		

# Receptor Pathway

AERMOD

1,465	629614.44	4263674.50	RISK	Option not Selected	Option not Selected
1,466	629614.44	4263774.50	RISK		
1,467	629614.44	4263874.50	RISK		
1,468	629614.44	4263974.50	RISK		
1,469	629614.44	4264074.50	RISK		
1,470	629614.44	4264174.50	RISK		
1,471	629614.44	4264274.50	RISK		
1,472	629614.44	4264374.50	RISK		
1,473	629614.44	4264474.50	RISK		
1,474	629614.44	4264574.50	RISK		
1,475	629614.44	4264674.50	RISK		
1,476	629614.44	4264774.50	RISK		
1,477	629614.44	4264874.50	RISK		
1,478	629614.44	4264974.50	RISK		
1,479	629614.44	4265074.50	RISK		
1,480	629614.44	4265174.50	RISK		
1,481	629614.44	4265274.50	RISK		
1,482	629614.44	4265374.50	RISK		
1,483	629614.44	4265474.50	RISK		
1,484	629614.44	4265574.50	RISK		
1,485	629614.44	4265674.50	RISK		
1,486	629614.44	4265774.50	RISK		
1,487	629614.44	4265874.50	RISK		
1,488	629614.44	4265974.50	RISK		
1,489	629614.44	4266074.50	RISK		
1,490	629614.44	4266174.50	RISK		
1,491	629614.44	4266274.50	RISK		
1,492	629614.44	4266374.50	RISK		
1,493	629614.44	4266474.50	RISK		
1,494	629614.44	4266574.50	RISK		
1,495	629614.44	4266674.50	RISK		
1,496	629614.44	4266774.50	RISK		
1,497	629614.44	4266874.50	RISK		
1,498	629614.44	4266974.50	RISK		
1,499	629614.44	4267074.50	RISK		
1,500	629614.44	4267174.50	RISK		
1,501	629614.44	4267274.50	RISK		
1,502	629614.44	4267374.50	RISK		
1,503	629614.44	4267474.50	RISK		
1,504	629614.44	4267574.50	RISK		
1,505	629614.44	4267674.50	RISK		

# Receptor Pathway

AERMOD

1,506	629614.44	4267774.50	RISK	Option not Selected	Option not Selected
1,507	629614.44	4267874.50	RISK		
1,508	629614.44	4267974.50	RISK		
1,509	629614.44	4268074.50	RISK		
1,510	629614.44	4268174.50	RISK		
1,511	629614.44	4268274.50	RISK		
1,512	629614.44	4268374.50	RISK		
1,513	629614.44	4268474.50	RISK		
1,514	629614.44	4268574.50	RISK		
1,515	629614.44	4268674.50	RISK		
1,516	629614.44	4268774.50	RISK		
1,517	629614.44	4268874.50	RISK		
1,518	629614.44	4268974.50	RISK		
1,519	629614.44	4269074.50	RISK		
1,520	629614.44	4269174.50	RISK		
1,521	629614.44	4269274.50	RISK		
1,522	629614.44	4269374.50	RISK		
1,523	629614.44	4269474.50	RISK		
1,524	629614.44	4269574.50	RISK		
1,525	629614.44	4269674.50	RISK		
1,526	629714.44	4263674.50	RISK		
1,527	629714.44	4263774.50	RISK		
1,528	629714.44	4263874.50	RISK		
1,529	629714.44	4263974.50	RISK		
1,530	629714.44	4264074.50	RISK		
1,531	629714.44	4264174.50	RISK		
1,532	629714.44	4264274.50	RISK		
1,533	629714.44	4264374.50	RISK		
1,534	629714.44	4264474.50	RISK		
1,535	629714.44	4264574.50	RISK		
1,536	629714.44	4264674.50	RISK		
1,537	629714.44	4264774.50	RISK		
1,538	629714.44	4264874.50	RISK		
1,539	629714.44	4264974.50	RISK		
1,540	629714.44	4265074.50	RISK		
1,541	629714.44	4265174.50	RISK		
1,542	629714.44	4265274.50	RISK		
1,543	629714.44	4265374.50	RISK		
1,544	629714.44	4265474.50	RISK		
1,545	629714.44	4265574.50	RISK		
1,546	629714.44	4265674.50	RISK		

# Receptor Pathway

AERMOD

1,547	629714.44	4265774.50	RISK	Option not Selected	Option not Selected
1,548	629714.44	4265874.50	RISK		
1,549	629714.44	4265974.50	RISK		
1,550	629714.44	4266074.50	RISK		
1,551	629714.44	4266174.50	RISK		
1,552	629714.44	4266274.50	RISK		
1,553	629714.44	4266374.50	RISK		
1,554	629714.44	4266474.50	RISK		
1,555	629714.44	4266574.50	RISK		
1,556	629714.44	4266674.50	RISK		
1,557	629714.44	4266774.50	RISK		
1,558	629714.44	4266874.50	RISK		
1,559	629714.44	4266974.50	RISK		
1,560	629714.44	4267074.50	RISK		
1,561	629714.44	4267174.50	RISK		
1,562	629714.44	4267274.50	RISK		
1,563	629714.44	4267374.50	RISK		
1,564	629714.44	4267474.50	RISK		
1,565	629714.44	4267574.50	RISK		
1,566	629714.44	4267674.50	RISK		
1,567	629714.44	4267774.50	RISK		
1,568	629714.44	4267874.50	RISK		
1,569	629714.44	4267974.50	RISK		
1,570	629714.44	4268074.50	RISK		
1,571	629714.44	4268174.50	RISK		
1,572	629714.44	4268274.50	RISK		
1,573	629714.44	4268374.50	RISK		
1,574	629714.44	4268474.50	RISK		
1,575	629714.44	4268574.50	RISK		
1,576	629714.44	4268674.50	RISK		
1,577	629714.44	4268774.50	RISK		
1,578	629714.44	4268874.50	RISK		
1,579	629714.44	4268974.50	RISK		
1,580	629714.44	4269074.50	RISK		
1,581	629714.44	4269174.50	RISK		
1,582	629714.44	4269274.50	RISK		
1,583	629714.44	4269374.50	RISK		
1,584	629714.44	4269474.50	RISK		
1,585	629714.44	4269574.50	RISK		
1,586	629714.44	4269674.50	RISK		
1,587	629814.44	4263674.50	RISK		

# Receptor Pathway

AERMOD

1,588	629814.44	4263774.50	RISK	Option not Selected	Option not Selected
1,589	629814.44	4263874.50	RISK		
1,590	629814.44	4263974.50	RISK		
1,591	629814.44	4264074.50	RISK		
1,592	629814.44	4264174.50	RISK		
1,593	629814.44	4264274.50	RISK		
1,594	629814.44	4264374.50	RISK		
1,595	629814.44	4264474.50	RISK		
1,596	629814.44	4264574.50	RISK		
1,597	629814.44	4264674.50	RISK		
1,598	629814.44	4264774.50	RISK		
1,599	629814.44	4264874.50	RISK		
1,600	629814.44	4264974.50	RISK		
1,601	629814.44	4265074.50	RISK		
1,602	629814.44	4265174.50	RISK		
1,603	629814.44	4265274.50	RISK		
1,604	629814.44	4265374.50	RISK		
1,605	629814.44	4265474.50	RISK		
1,606	629814.44	4265574.50	RISK		
1,607	629814.44	4265674.50	RISK		
1,608	629814.44	4265774.50	RISK		
1,609	629814.44	4265874.50	RISK		
1,610	629814.44	4265974.50	RISK		
1,611	629814.44	4266074.50	RISK		
1,612	629814.44	4266174.50	RISK		
1,613	629814.44	4266274.50	RISK		
1,614	629814.44	4266374.50	RISK		
1,615	629814.44	4266474.50	RISK		
1,616	629814.44	4266574.50	RISK		
1,617	629814.44	4266674.50	RISK		
1,618	629814.44	4266774.50	RISK		
1,619	629814.44	4266874.50	RISK		
1,620	629814.44	4266974.50	RISK		
1,621	629814.44	4267074.50	RISK		
1,622	629814.44	4267174.50	RISK		
1,623	629814.44	4267274.50	RISK		
1,624	629814.44	4267374.50	RISK		
1,625	629814.44	4267474.50	RISK		
1,626	629814.44	4267574.50	RISK		
1,627	629814.44	4267674.50	RISK		
1,628	629814.44	4267774.50	RISK		

# Receptor Pathway

AERMOD

1,629	629814.44	4267874.50	RISK	Option not Selected	Option not Selected
1,630	629814.44	4267974.50	RISK		
1,631	629814.44	4268074.50	RISK		
1,632	629814.44	4268174.50	RISK		
1,633	629814.44	4268274.50	RISK		
1,634	629814.44	4268374.50	RISK		
1,635	629814.44	4268474.50	RISK		
1,636	629814.44	4268574.50	RISK		
1,637	629814.44	4268674.50	RISK		
1,638	629814.44	4268774.50	RISK		
1,639	629814.44	4268874.50	RISK		
1,640	629814.44	4268974.50	RISK		
1,641	629814.44	4269074.50	RISK		
1,642	629814.44	4269174.50	RISK		
1,643	629814.44	4269274.50	RISK		
1,644	629814.44	4269374.50	RISK		
1,645	629814.44	4269474.50	RISK		
1,646	629814.44	4269574.50	RISK		
1,647	629814.44	4269674.50	RISK		
1,648	629914.44	4263674.50	RISK		
1,649	629914.44	4263774.50	RISK		
1,650	629914.44	4263874.50	RISK		
1,651	629914.44	4263974.50	RISK		
1,652	629914.44	4264074.50	RISK		
1,653	629914.44	4264174.50	RISK		
1,654	629914.44	4264274.50	RISK		
1,655	629914.44	4264374.50	RISK		
1,656	629914.44	4264474.50	RISK		
1,657	629914.44	4264574.50	RISK		
1,658	629914.44	4264674.50	RISK		
1,659	629914.44	4264774.50	RISK		
1,660	629914.44	4264874.50	RISK		
1,661	629914.44	4264974.50	RISK		
1,662	629914.44	4265074.50	RISK		
1,663	629914.44	4265174.50	RISK		
1,664	629914.44	4265274.50	RISK		
1,665	629914.44	4265374.50	RISK		
1,666	629914.44	4265474.50	RISK		
1,667	629914.44	4265574.50	RISK		
1,668	629914.44	4265674.50	RISK		
1,669	629914.44	4265774.50	RISK		

# Receptor Pathway

AERMOD

1,670	629914.44	4265874.50	RISK	Option not Selected	Option not Selected
1,671	629914.44	4265974.50	RISK		
1,672	629914.44	4266074.50	RISK		
1,673	629914.44	4266174.50	RISK		
1,674	629914.44	4266274.50	RISK		
1,675	629914.44	4266374.50	RISK		
1,676	629914.44	4266474.50	RISK		
1,677	629914.44	4266574.50	RISK		
1,678	629914.44	4266674.50	RISK		
1,679	629914.44	4266774.50	RISK		
1,680	629914.44	4266874.50	RISK		
1,681	629914.44	4266974.50	RISK		
1,682	629914.44	4267074.50	RISK		
1,683	629914.44	4267174.50	RISK		
1,684	629914.44	4267274.50	RISK		
1,685	629914.44	4267374.50	RISK		
1,686	629914.44	4267474.50	RISK		
1,687	629914.44	4267574.50	RISK		
1,688	629914.44	4267674.50	RISK		
1,689	629914.44	4267774.50	RISK		
1,690	629914.44	4267874.50	RISK		
1,691	629914.44	4267974.50	RISK		
1,692	629914.44	4268074.50	RISK		
1,693	629914.44	4268174.50	RISK		
1,694	629914.44	4268274.50	RISK		
1,695	629914.44	4268374.50	RISK		
1,696	629914.44	4268474.50	RISK		
1,697	629914.44	4268574.50	RISK		
1,698	629914.44	4268674.50	RISK		
1,699	629914.44	4268774.50	RISK		
1,700	629914.44	4268874.50	RISK		
1,701	629914.44	4268974.50	RISK		
1,702	629914.44	4269074.50	RISK		
1,703	629914.44	4269174.50	RISK		
1,704	629914.44	4269274.50	RISK		
1,705	629914.44	4269374.50	RISK		
1,706	629914.44	4269474.50	RISK		
1,707	629914.44	4269574.50	RISK		
1,708	629914.44	4269674.50	RISK		
1,709	630014.44	4263674.50	RISK		
1,710	630014.44	4263774.50	RISK		

# Receptor Pathway

AERMOD

1,711	630014.44	4263874.50	RISK	Option not Selected	Option not Selected
1,712	630014.44	4263974.50	RISK		
1,713	630014.44	4264074.50	RISK		
1,714	630014.44	4264174.50	RISK		
1,715	630014.44	4264274.50	RISK		
1,716	630014.44	4264374.50	RISK		
1,717	630014.44	4264474.50	RISK		
1,718	630014.44	4264574.50	RISK		
1,719	630014.44	4264674.50	RISK		
1,720	630014.44	4264774.50	RISK		
1,721	630014.44	4264874.50	RISK		
1,722	630014.44	4264974.50	RISK		
1,723	630014.44	4265074.50	RISK		
1,724	630014.44	4265174.50	RISK		
1,725	630014.44	4265274.50	RISK		
1,726	630014.44	4265374.50	RISK		
1,727	630014.44	4265474.50	RISK		
1,728	630014.44	4265574.50	RISK		
1,729	630014.44	4265674.50	RISK		
1,730	630014.44	4265774.50	RISK		
1,731	630014.44	4265874.50	RISK		
1,732	630014.44	4265974.50	RISK		
1,733	630014.44	4266074.50	RISK		
1,734	630014.44	4266174.50	RISK		
1,735	630014.44	4266274.50	RISK		
1,736	630014.44	4266374.50	RISK		
1,737	630014.44	4266474.50	RISK		
1,738	630014.44	4266574.50	RISK		
1,739	630014.44	4266674.50	RISK		
1,740	630014.44	4266774.50	RISK		
1,741	630014.44	4266874.50	RISK		
1,742	630014.44	4266974.50	RISK		
1,743	630014.44	4267074.50	RISK		
1,744	630014.44	4267174.50	RISK		
1,745	630014.44	4267274.50	RISK		
1,746	630014.44	4267374.50	RISK		
1,747	630014.44	4267474.50	RISK		
1,748	630014.44	4267574.50	RISK		
1,749	630014.44	4267674.50	RISK		
1,750	630014.44	4267774.50	RISK		
1,751	630014.44	4267874.50	RISK		

# Receptor Pathway

AERMOD

1,752	630014.44	4267974.50	RISK	Option not Selected	Option not Selected
1,753	630014.44	4268074.50	RISK		
1,754	630014.44	4268174.50	RISK		
1,755	630014.44	4268274.50	RISK		
1,756	630014.44	4268374.50	RISK		
1,757	630014.44	4268474.50	RISK		
1,758	630014.44	4268574.50	RISK		
1,759	630014.44	4268674.50	RISK		
1,760	630014.44	4268774.50	RISK		
1,761	630014.44	4268874.50	RISK		
1,762	630014.44	4268974.50	RISK		
1,763	630014.44	4269074.50	RISK		
1,764	630014.44	4269174.50	RISK		
1,765	630014.44	4269274.50	RISK		
1,766	630014.44	4269374.50	RISK		
1,767	630014.44	4269474.50	RISK		
1,768	630014.44	4269574.50	RISK		
1,769	630014.44	4269674.50	RISK		
1,770	630114.44	4263674.50	RISK		
1,771	630114.44	4263774.50	RISK		
1,772	630114.44	4263874.50	RISK		
1,773	630114.44	4263974.50	RISK		
1,774	630114.44	4264074.50	RISK		
1,775	630114.44	4264174.50	RISK		
1,776	630114.44	4264274.50	RISK		
1,777	630114.44	4264374.50	RISK		
1,778	630114.44	4264474.50	RISK		
1,779	630114.44	4264574.50	RISK		
1,780	630114.44	4264674.50	RISK		
1,781	630114.44	4264774.50	RISK		
1,782	630114.44	4264874.50	RISK		
1,783	630114.44	4264974.50	RISK		
1,784	630114.44	4265074.50	RISK		
1,785	630114.44	4265174.50	RISK		
1,786	630114.44	4265274.50	RISK		
1,787	630114.44	4265374.50	RISK		
1,788	630114.44	4265474.50	RISK		
1,789	630114.44	4265574.50	RISK		
1,790	630114.44	4265674.50	RISK		
1,791	630114.44	4265774.50	RISK		
1,792	630114.44	4265874.50	RISK		

# Receptor Pathway

AERMOD

1,793	630114.44	4265974.50	RISK	Option not Selected	Option not Selected
1,794	630114.44	4266074.50	RISK		
1,795	630114.44	4266174.50	RISK		
1,796	630114.44	4266274.50	RISK		
1,797	630114.44	4266374.50	RISK		
1,798	630114.44	4266474.50	RISK		
1,799	630114.44	4266574.50	RISK		
1,800	630114.44	4266674.50	RISK		
1,801	630114.44	4266774.50	RISK		
1,802	630114.44	4266874.50	RISK		
1,803	630114.44	4266974.50	RISK		
1,804	630114.44	4267074.50	RISK		
1,805	630114.44	4267174.50	RISK		
1,806	630114.44	4267274.50	RISK		
1,807	630114.44	4267374.50	RISK		
1,808	630114.44	4267474.50	RISK		
1,809	630114.44	4267574.50	RISK		
1,810	630114.44	4267674.50	RISK		
1,811	630114.44	4267774.50	RISK		
1,812	630114.44	4267874.50	RISK		
1,813	630114.44	4267974.50	RISK		
1,814	630114.44	4268074.50	RISK		
1,815	630114.44	4268174.50	RISK		
1,816	630114.44	4268274.50	RISK		
1,817	630114.44	4268374.50	RISK		
1,818	630114.44	4268474.50	RISK		
1,819	630114.44	4268574.50	RISK		
1,820	630114.44	4268674.50	RISK		
1,821	630114.44	4268774.50	RISK		
1,822	630114.44	4268874.50	RISK		
1,823	630114.44	4268974.50	RISK		
1,824	630114.44	4269074.50	RISK		
1,825	630114.44	4269174.50	RISK		
1,826	630114.44	4269274.50	RISK		
1,827	630114.44	4269374.50	RISK		
1,828	630114.44	4269474.50	RISK		
1,829	630114.44	4269574.50	RISK		
1,830	630114.44	4269674.50	RISK		
1,831	630214.44	4263674.50	RISK		
1,832	630214.44	4263774.50	RISK		
1,833	630214.44	4263874.50	RISK		

# Receptor Pathway

AERMOD

1,834	630214.44	4263974.50	RISK	Option not Selected	Option not Selected
1,835	630214.44	4264074.50	RISK		
1,836	630214.44	4264174.50	RISK		
1,837	630214.44	4264274.50	RISK		
1,838	630214.44	4264374.50	RISK		
1,839	630214.44	4264474.50	RISK		
1,840	630214.44	4264574.50	RISK		
1,841	630214.44	4264674.50	RISK		
1,842	630214.44	4264774.50	RISK		
1,843	630214.44	4264874.50	RISK		
1,844	630214.44	4264974.50	RISK		
1,845	630214.44	4265074.50	RISK		
1,846	630214.44	4265174.50	RISK		
1,847	630214.44	4265274.50	RISK		
1,848	630214.44	4265374.50	RISK		
1,849	630214.44	4265474.50	RISK		
1,850	630214.44	4265574.50	RISK		
1,851	630214.44	4265674.50	RISK		
1,852	630214.44	4265774.50	RISK		
1,853	630214.44	4265874.50	RISK		
1,854	630214.44	4265974.50	RISK		
1,855	630214.44	4266074.50	RISK		
1,856	630214.44	4266174.50	RISK		
1,857	630214.44	4266274.50	RISK		
1,858	630214.44	4266374.50	RISK		
1,859	630214.44	4266474.50	RISK		
1,860	630214.44	4266574.50	RISK		
1,861	630214.44	4266674.50	RISK		
1,862	630214.44	4266774.50	RISK		
1,863	630214.44	4266874.50	RISK		
1,864	630214.44	4266974.50	RISK		
1,865	630214.44	4267074.50	RISK		
1,866	630214.44	4267174.50	RISK		
1,867	630214.44	4267274.50	RISK		
1,868	630214.44	4267374.50	RISK		
1,869	630214.44	4267474.50	RISK		
1,870	630214.44	4267574.50	RISK		
1,871	630214.44	4267674.50	RISK		
1,872	630214.44	4267774.50	RISK		
1,873	630214.44	4267874.50	RISK		
1,874	630214.44	4267974.50	RISK		

# Receptor Pathway

AERMOD

1,875	630214.44	4268074.50	RISK	Option not Selected	Option not Selected
1,876	630214.44	4268174.50	RISK		
1,877	630214.44	4268274.50	RISK		
1,878	630214.44	4268374.50	RISK		
1,879	630214.44	4268474.50	RISK		
1,880	630214.44	4268574.50	RISK		
1,881	630214.44	4268674.50	RISK		
1,882	630214.44	4268774.50	RISK		
1,883	630214.44	4268874.50	RISK		
1,884	630214.44	4268974.50	RISK		
1,885	630214.44	4269074.50	RISK		
1,886	630214.44	4269174.50	RISK		
1,887	630214.44	4269274.50	RISK		
1,888	630214.44	4269374.50	RISK		
1,889	630214.44	4269474.50	RISK		
1,890	630214.44	4269574.50	RISK		
1,891	630214.44	4269674.50	RISK		
1,892	630314.44	4263674.50	RISK		
1,893	630314.44	4263774.50	RISK		
1,894	630314.44	4263874.50	RISK		
1,895	630314.44	4263974.50	RISK		
1,896	630314.44	4264074.50	RISK		
1,897	630314.44	4264174.50	RISK		
1,898	630314.44	4264274.50	RISK		
1,899	630314.44	4264374.50	RISK		
1,900	630314.44	4264474.50	RISK		
1,901	630314.44	4264574.50	RISK		
1,902	630314.44	4264674.50	RISK		
1,903	630314.44	4264774.50	RISK		
1,904	630314.44	4264874.50	RISK		
1,905	630314.44	4264974.50	RISK		
1,906	630314.44	4265074.50	RISK		
1,907	630314.44	4265174.50	RISK		
1,908	630314.44	4265274.50	RISK		
1,909	630314.44	4265374.50	RISK		
1,910	630314.44	4265474.50	RISK		
1,911	630314.44	4265574.50	RISK		
1,912	630314.44	4265674.50	RISK		
1,913	630314.44	4265774.50	RISK		
1,914	630314.44	4265874.50	RISK		
1,915	630314.44	4265974.50	RISK		

# Receptor Pathway

AERMOD

1,916	630314.44	4266074.50	RISK	Option not Selected	Option not Selected
1,917	630314.44	4266174.50	RISK		
1,918	630314.44	4266274.50	RISK		
1,919	630314.44	4266374.50	RISK		
1,920	630314.44	4266474.50	RISK		
1,921	630314.44	4266574.50	RISK		
1,922	630314.44	4266674.50	RISK		
1,923	630314.44	4266774.50	RISK		
1,924	630314.44	4266874.50	RISK		
1,925	630314.44	4266974.50	RISK		
1,926	630314.44	4267074.50	RISK		
1,927	630314.44	4267174.50	RISK		
1,928	630314.44	4267274.50	RISK		
1,929	630314.44	4267374.50	RISK		
1,930	630314.44	4267474.50	RISK		
1,931	630314.44	4267574.50	RISK		
1,932	630314.44	4267674.50	RISK		
1,933	630314.44	4267774.50	RISK		
1,934	630314.44	4267874.50	RISK		
1,935	630314.44	4267974.50	RISK		
1,936	630314.44	4268074.50	RISK		
1,937	630314.44	4268174.50	RISK		
1,938	630314.44	4268274.50	RISK		
1,939	630314.44	4268374.50	RISK		
1,940	630314.44	4268474.50	RISK		
1,941	630314.44	4268574.50	RISK		
1,942	630314.44	4268674.50	RISK		
1,943	630314.44	4268774.50	RISK		
1,944	630314.44	4268874.50	RISK		
1,945	630314.44	4268974.50	RISK		
1,946	630314.44	4269074.50	RISK		
1,947	630314.44	4269174.50	RISK		
1,948	630314.44	4269274.50	RISK		
1,949	630314.44	4269374.50	RISK		
1,950	630314.44	4269474.50	RISK		
1,951	630314.44	4269574.50	RISK		
1,952	630314.44	4269674.50	RISK		
1,953	630414.44	4263674.50	RISK		
1,954	630414.44	4263774.50	RISK		
1,955	630414.44	4263874.50	RISK		
1,956	630414.44	4263974.50	RISK		

# Receptor Pathway

AERMOD

1,957	630414.44	4264074.50	RISK	Option not Selected	Option not Selected
1,958	630414.44	4264174.50	RISK		
1,959	630414.44	4264274.50	RISK		
1,960	630414.44	4264374.50	RISK		
1,961	630414.44	4264474.50	RISK		
1,962	630414.44	4264574.50	RISK		
1,963	630414.44	4264674.50	RISK		
1,964	630414.44	4264774.50	RISK		
1,965	630414.44	4264874.50	RISK		
1,966	630414.44	4264974.50	RISK		
1,967	630414.44	4265074.50	RISK		
1,968	630414.44	4265174.50	RISK		
1,969	630414.44	4265274.50	RISK		
1,970	630414.44	4265374.50	RISK		
1,971	630414.44	4265474.50	RISK		
1,972	630414.44	4265574.50	RISK		
1,973	630414.44	4265674.50	RISK		
1,974	630414.44	4265774.50	RISK		
1,975	630414.44	4265874.50	RISK		
1,976	630414.44	4265974.50	RISK		
1,977	630414.44	4266074.50	RISK		
1,978	630414.44	4266174.50	RISK		
1,979	630414.44	4266274.50	RISK		
1,980	630414.44	4266374.50	RISK		
1,981	630414.44	4266474.50	RISK		
1,982	630414.44	4266574.50	RISK		
1,983	630414.44	4266674.50	RISK		
1,984	630414.44	4266774.50	RISK		
1,985	630414.44	4266874.50	RISK		
1,986	630414.44	4266974.50	RISK		
1,987	630414.44	4267074.50	RISK		
1,988	630414.44	4267174.50	RISK		
1,989	630414.44	4267274.50	RISK		
1,990	630414.44	4267374.50	RISK		
1,991	630414.44	4267474.50	RISK		
1,992	630414.44	4267574.50	RISK		
1,993	630414.44	4267674.50	RISK		
1,994	630414.44	4267774.50	RISK		
1,995	630414.44	4267874.50	RISK		
1,996	630414.44	4267974.50	RISK		
1,997	630414.44	4268074.50	RISK		

# Receptor Pathway

AERMOD

1,998	630414.44	4268174.50	RISK	Option not Selected	Option not Selected
1,999	630414.44	4268274.50	RISK		
2,000	630414.44	4268374.50	RISK		
2,001	630414.44	4268474.50	RISK		
2,002	630414.44	4268574.50	RISK		
2,003	630414.44	4268674.50	RISK		
2,004	630414.44	4268774.50	RISK		
2,005	630414.44	4268874.50	RISK		
2,006	630414.44	4268974.50	RISK		
2,007	630414.44	4269074.50	RISK		
2,008	630414.44	4269174.50	RISK		
2,009	630414.44	4269274.50	RISK		
2,010	630414.44	4269374.50	RISK		
2,011	630414.44	4269474.50	RISK		
2,012	630414.44	4269574.50	RISK		
2,013	630414.44	4269674.50	RISK		
2,014	630514.44	4263674.50	RISK		
2,015	630514.44	4263774.50	RISK		
2,016	630514.44	4263874.50	RISK		
2,017	630514.44	4263974.50	RISK		
2,018	630514.44	4264074.50	RISK		
2,019	630514.44	4264174.50	RISK		
2,020	630514.44	4264274.50	RISK		
2,021	630514.44	4264374.50	RISK		
2,022	630514.44	4264474.50	RISK		
2,023	630514.44	4264574.50	RISK		
2,024	630514.44	4264674.50	RISK		
2,025	630514.44	4264774.50	RISK		
2,026	630514.44	4264874.50	RISK		
2,027	630514.44	4264974.50	RISK		
2,028	630514.44	4265074.50	RISK		
2,029	630514.44	4265174.50	RISK		
2,030	630514.44	4265274.50	RISK		
2,031	630514.44	4265374.50	RISK		
2,032	630514.44	4265474.50	RISK		
2,033	630514.44	4265574.50	RISK		
2,034	630514.44	4265674.50	RISK		
2,035	630514.44	4265774.50	RISK		
2,036	630514.44	4265874.50	RISK		
2,037	630514.44	4265974.50	RISK		
2,038	630514.44	4266074.50	RISK		

# Receptor Pathway

AERMOD

2,039	630514.44	4266174.50	RISK	Option not Selected	Option not Selected
2,040	630514.44	4266274.50	RISK		
2,041	630514.44	4266374.50	RISK		
2,042	630514.44	4266474.50	RISK		
2,043	630514.44	4266574.50	RISK		
2,044	630514.44	4266674.50	RISK		
2,045	630514.44	4266774.50	RISK		
2,046	630514.44	4266874.50	RISK		
2,047	630514.44	4266974.50	RISK		
2,048	630514.44	4267074.50	RISK		
2,049	630514.44	4267174.50	RISK		
2,050	630514.44	4267274.50	RISK		
2,051	630514.44	4267374.50	RISK		
2,052	630514.44	4267474.50	RISK		
2,053	630514.44	4267574.50	RISK		
2,054	630514.44	4267674.50	RISK		
2,055	630514.44	4267774.50	RISK		
2,056	630514.44	4267874.50	RISK		
2,057	630514.44	4267974.50	RISK		
2,058	630514.44	4268074.50	RISK		
2,059	630514.44	4268174.50	RISK		
2,060	630514.44	4268274.50	RISK		
2,061	630514.44	4268374.50	RISK		
2,062	630514.44	4268474.50	RISK		
2,063	630514.44	4268574.50	RISK		
2,064	630514.44	4268674.50	RISK		
2,065	630514.44	4268774.50	RISK		
2,066	630514.44	4268874.50	RISK		
2,067	630514.44	4268974.50	RISK		
2,068	630514.44	4269074.50	RISK		
2,069	630514.44	4269174.50	RISK		
2,070	630514.44	4269274.50	RISK		
2,071	630514.44	4269374.50	RISK		
2,072	630514.44	4269474.50	RISK		
2,073	630514.44	4269574.50	RISK		
2,074	630514.44	4269674.50	RISK		
2,075	630614.44	4263674.50	RISK		
2,076	630614.44	4263774.50	RISK		
2,077	630614.44	4263874.50	RISK		
2,078	630614.44	4263974.50	RISK		
2,079	630614.44	4264074.50	RISK		

# Receptor Pathway

AERMOD

2,080	630614.44	4264174.50	RISK	Option not Selected	Option not Selected
2,081	630614.44	4264274.50	RISK		
2,082	630614.44	4264374.50	RISK		
2,083	630614.44	4264474.50	RISK		
2,084	630614.44	4264574.50	RISK		
2,085	630614.44	4264674.50	RISK		
2,086	630614.44	4264774.50	RISK		
2,087	630614.44	4264874.50	RISK		
2,088	630614.44	4264974.50	RISK		
2,089	630614.44	4265074.50	RISK		
2,090	630614.44	4265174.50	RISK		
2,091	630614.44	4265274.50	RISK		
2,092	630614.44	4265374.50	RISK		
2,093	630614.44	4265474.50	RISK		
2,094	630614.44	4265574.50	RISK		
2,095	630614.44	4265674.50	RISK		
2,096	630614.44	4265774.50	RISK		
2,097	630614.44	4265874.50	RISK		
2,098	630614.44	4265974.50	RISK		
2,099	630614.44	4266074.50	RISK		
2,100	630614.44	4266174.50	RISK		
2,101	630614.44	4266274.50	RISK		
2,102	630614.44	4266374.50	RISK		
2,103	630614.44	4266474.50	RISK		
2,104	630614.44	4266574.50	RISK		
2,105	630614.44	4266674.50	RISK		
2,106	630614.44	4266774.50	RISK		
2,107	630614.44	4266874.50	RISK		
2,108	630614.44	4266974.50	RISK		
2,109	630614.44	4267074.50	RISK		
2,110	630614.44	4267174.50	RISK		
2,111	630614.44	4267274.50	RISK		
2,112	630614.44	4267374.50	RISK		
2,113	630614.44	4267474.50	RISK		
2,114	630614.44	4267574.50	RISK		
2,115	630614.44	4267674.50	RISK		
2,116	630614.44	4267774.50	RISK		
2,117	630614.44	4267874.50	RISK		
2,118	630614.44	4267974.50	RISK		
2,119	630614.44	4268074.50	RISK		
2,120	630614.44	4268174.50	RISK		

# Receptor Pathway

AERMOD

2,121	630614.44	4268274.50	RISK	Option not Selected	Option not Selected
2,122	630614.44	4268374.50	RISK		
2,123	630614.44	4268474.50	RISK		
2,124	630614.44	4268574.50	RISK		
2,125	630614.44	4268674.50	RISK		
2,126	630614.44	4268774.50	RISK		
2,127	630614.44	4268874.50	RISK		
2,128	630614.44	4268974.50	RISK		
2,129	630614.44	4269074.50	RISK		
2,130	630614.44	4269174.50	RISK		
2,131	630614.44	4269274.50	RISK		
2,132	630614.44	4269374.50	RISK		
2,133	630614.44	4269474.50	RISK		
2,134	630614.44	4269574.50	RISK		
2,135	630614.44	4269674.50	RISK		
2,136	630714.44	4263674.50	RISK		
2,137	630714.44	4263774.50	RISK		
2,138	630714.44	4263874.50	RISK		
2,139	630714.44	4263974.50	RISK		
2,140	630714.44	4264074.50	RISK		
2,141	630714.44	4264174.50	RISK		
2,142	630714.44	4264274.50	RISK		
2,143	630714.44	4264374.50	RISK		
2,144	630714.44	4264474.50	RISK		
2,145	630714.44	4264574.50	RISK		
2,146	630714.44	4264674.50	RISK		
2,147	630714.44	4264774.50	RISK		
2,148	630714.44	4264874.50	RISK		
2,149	630714.44	4264974.50	RISK		
2,150	630714.44	4265074.50	RISK		
2,151	630714.44	4265174.50	RISK		
2,152	630714.44	4265274.50	RISK		
2,153	630714.44	4265374.50	RISK		
2,154	630714.44	4265474.50	RISK		
2,155	630714.44	4265574.50	RISK		
2,156	630714.44	4265674.50	RISK		
2,157	630714.44	4265774.50	RISK		
2,158	630714.44	4265874.50	RISK		
2,159	630714.44	4265974.50	RISK		
2,160	630714.44	4266074.50	RISK		
2,161	630714.44	4266174.50	RISK		

# Receptor Pathway

AERMOD

2,162	630714.44	4266274.50	RISK	Option not Selected	Option not Selected
2,163	630714.44	4266374.50	RISK		
2,164	630714.44	4266474.50	RISK		
2,165	630714.44	4266574.50	RISK		
2,166	630714.44	4266674.50	RISK		
2,167	630714.44	4266774.50	RISK		
2,168	630714.44	4266874.50	RISK		
2,169	630714.44	4266974.50	RISK		
2,170	630714.44	4267074.50	RISK		
2,171	630714.44	4267174.50	RISK		
2,172	630714.44	4267274.50	RISK		
2,173	630714.44	4267374.50	RISK		
2,174	630714.44	4267474.50	RISK		
2,175	630714.44	4267574.50	RISK		
2,176	630714.44	4267674.50	RISK		
2,177	630714.44	4267774.50	RISK		
2,178	630714.44	4267874.50	RISK		
2,179	630714.44	4267974.50	RISK		
2,180	630714.44	4268074.50	RISK		
2,181	630714.44	4268174.50	RISK		
2,182	630714.44	4268274.50	RISK		
2,183	630714.44	4268374.50	RISK		
2,184	630714.44	4268474.50	RISK		
2,185	630714.44	4268574.50	RISK		
2,186	630714.44	4268674.50	RISK		
2,187	630714.44	4268774.50	RISK		
2,188	630714.44	4268874.50	RISK		
2,189	630714.44	4268974.50	RISK		
2,190	630714.44	4269074.50	RISK		
2,191	630714.44	4269174.50	RISK		
2,192	630714.44	4269274.50	RISK		
2,193	630714.44	4269374.50	RISK		
2,194	630714.44	4269474.50	RISK		
2,195	630714.44	4269574.50	RISK		
2,196	630714.44	4269674.50	RISK		
2,197	630814.44	4263674.50	RISK		
2,198	630814.44	4263774.50	RISK		
2,199	630814.44	4263874.50	RISK		
2,200	630814.44	4263974.50	RISK		
2,201	630814.44	4264074.50	RISK		
2,202	630814.44	4264174.50	RISK		

# Receptor Pathway

AERMOD

2,203	630814.44	4264274.50	RISK	Option not Selected	Option not Selected
2,204	630814.44	4264374.50	RISK		
2,205	630814.44	4264474.50	RISK		
2,206	630814.44	4264574.50	RISK		
2,207	630814.44	4264674.50	RISK		
2,208	630814.44	4264774.50	RISK		
2,209	630814.44	4264874.50	RISK		
2,210	630814.44	4264974.50	RISK		
2,211	630814.44	4265074.50	RISK		
2,212	630814.44	4265174.50	RISK		
2,213	630814.44	4265274.50	RISK		
2,214	630814.44	4265374.50	RISK		
2,215	630814.44	4265474.50	RISK		
2,216	630814.44	4265574.50	RISK		
2,217	630814.44	4265674.50	RISK		
2,218	630814.44	4265774.50	RISK		
2,219	630814.44	4265874.50	RISK		
2,220	630814.44	4265974.50	RISK		
2,221	630814.44	4266074.50	RISK		
2,222	630814.44	4266174.50	RISK		
2,223	630814.44	4266274.50	RISK		
2,224	630814.44	4266374.50	RISK		
2,225	630814.44	4266474.50	RISK		
2,226	630814.44	4266574.50	RISK		
2,227	630814.44	4266674.50	RISK		
2,228	630814.44	4266774.50	RISK		
2,229	630814.44	4266874.50	RISK		
2,230	630814.44	4266974.50	RISK		
2,231	630814.44	4267074.50	RISK		
2,232	630814.44	4267174.50	RISK		
2,233	630814.44	4267274.50	RISK		
2,234	630814.44	4267374.50	RISK		
2,235	630814.44	4267474.50	RISK		
2,236	630814.44	4267574.50	RISK		
2,237	630814.44	4267674.50	RISK		
2,238	630814.44	4267774.50	RISK		
2,239	630814.44	4267874.50	RISK		
2,240	630814.44	4267974.50	RISK		
2,241	630814.44	4268074.50	RISK		
2,242	630814.44	4268174.50	RISK		
2,243	630814.44	4268274.50	RISK		

# Receptor Pathway

AERMOD

2,244	630814.44	4268374.50	RISK	Option not Selected	Option not Selected
2,245	630814.44	4268474.50	RISK		
2,246	630814.44	4268574.50	RISK		
2,247	630814.44	4268674.50	RISK		
2,248	630814.44	4268774.50	RISK		
2,249	630814.44	4268874.50	RISK		
2,250	630814.44	4268974.50	RISK		
2,251	630814.44	4269074.50	RISK		
2,252	630814.44	4269174.50	RISK		
2,253	630814.44	4269274.50	RISK		
2,254	630814.44	4269374.50	RISK		
2,255	630814.44	4269474.50	RISK		
2,256	630814.44	4269574.50	RISK		
2,257	630814.44	4269674.50	RISK		
2,258	630914.44	4263674.50	RISK		
2,259	630914.44	4263774.50	RISK		
2,260	630914.44	4263874.50	RISK		
2,261	630914.44	4263974.50	RISK		
2,262	630914.44	4264074.50	RISK		
2,263	630914.44	4264174.50	RISK		
2,264	630914.44	4264274.50	RISK		
2,265	630914.44	4264374.50	RISK		
2,266	630914.44	4264474.50	RISK		
2,267	630914.44	4264574.50	RISK		
2,268	630914.44	4264674.50	RISK		
2,269	630914.44	4264774.50	RISK		
2,270	630914.44	4264874.50	RISK		
2,271	630914.44	4264974.50	RISK		
2,272	630914.44	4265074.50	RISK		
2,273	630914.44	4265174.50	RISK		
2,274	630914.44	4265274.50	RISK		
2,275	630914.44	4265374.50	RISK		
2,276	630914.44	4265474.50	RISK		
2,277	630914.44	4265574.50	RISK		
2,278	630914.44	4265674.50	RISK		
2,279	630914.44	4265774.50	RISK		
2,280	630914.44	4265874.50	RISK		
2,281	630914.44	4265974.50	RISK		
2,282	630914.44	4266074.50	RISK		
2,283	630914.44	4266174.50	RISK		
2,284	630914.44	4266274.50	RISK		

# Receptor Pathway

AERMOD

2,285	630914.44	4266374.50	RISK	Option not Selected	Option not Selected
2,286	630914.44	4266474.50	RISK		
2,287	630914.44	4266574.50	RISK		
2,288	630914.44	4266674.50	RISK		
2,289	630914.44	4266774.50	RISK		
2,290	630914.44	4266874.50	RISK		
2,291	630914.44	4266974.50	RISK		
2,292	630914.44	4267074.50	RISK		
2,293	630914.44	4267174.50	RISK		
2,294	630914.44	4267274.50	RISK		
2,295	630914.44	4267374.50	RISK		
2,296	630914.44	4267474.50	RISK		
2,297	630914.44	4267574.50	RISK		
2,298	630914.44	4267674.50	RISK		
2,299	630914.44	4267774.50	RISK		
2,300	630914.44	4267874.50	RISK		
2,301	630914.44	4267974.50	RISK		
2,302	630914.44	4268074.50	RISK		
2,303	630914.44	4268174.50	RISK		
2,304	630914.44	4268274.50	RISK		
2,305	630914.44	4268374.50	RISK		
2,306	630914.44	4268474.50	RISK		
2,307	630914.44	4268574.50	RISK		
2,308	630914.44	4268674.50	RISK		
2,309	630914.44	4268774.50	RISK		
2,310	630914.44	4268874.50	RISK		
2,311	630914.44	4268974.50	RISK		
2,312	630914.44	4269074.50	RISK		
2,313	630914.44	4269174.50	RISK		
2,314	630914.44	4269274.50	RISK		
2,315	630914.44	4269374.50	RISK		
2,316	630914.44	4269474.50	RISK		
2,317	630914.44	4269574.50	RISK		
2,318	630914.44	4269674.50	RISK		
2,319	631014.44	4263674.50	RISK		
2,320	631014.44	4263774.50	RISK		
2,321	631014.44	4263874.50	RISK		
2,322	631014.44	4263974.50	RISK		
2,323	631014.44	4264074.50	RISK		
2,324	631014.44	4264174.50	RISK		
2,325	631014.44	4264274.50	RISK		

# Receptor Pathway

AERMOD

2,326	631014.44	4264374.50	RISK	Option not Selected	Option not Selected
2,327	631014.44	4264474.50	RISK		
2,328	631014.44	4264574.50	RISK		
2,329	631014.44	4264674.50	RISK		
2,330	631014.44	4264774.50	RISK		
2,331	631014.44	4264874.50	RISK		
2,332	631014.44	4264974.50	RISK		
2,333	631014.44	4265074.50	RISK		
2,334	631014.44	4265174.50	RISK		
2,335	631014.44	4265274.50	RISK		
2,336	631014.44	4265374.50	RISK		
2,337	631014.44	4265474.50	RISK		
2,338	631014.44	4265574.50	RISK		
2,339	631014.44	4265674.50	RISK		
2,340	631014.44	4265774.50	RISK		
2,341	631014.44	4265874.50	RISK		
2,342	631014.44	4265974.50	RISK		
2,343	631014.44	4266074.50	RISK		
2,344	631014.44	4266174.50	RISK		
2,345	631014.44	4266274.50	RISK		
2,346	631014.44	4266374.50	RISK		
2,347	631014.44	4266474.50	RISK		
2,348	631014.44	4266574.50	RISK		
2,349	631014.44	4266674.50	RISK		
2,350	631014.44	4266774.50	RISK		
2,351	631014.44	4266874.50	RISK		
2,352	631014.44	4266974.50	RISK		
2,353	631014.44	4267074.50	RISK		
2,354	631014.44	4267174.50	RISK		
2,355	631014.44	4267274.50	RISK		
2,356	631014.44	4267374.50	RISK		
2,357	631014.44	4267474.50	RISK		
2,358	631014.44	4267574.50	RISK		
2,359	631014.44	4267674.50	RISK		
2,360	631014.44	4267774.50	RISK		
2,361	631014.44	4267874.50	RISK		
2,362	631014.44	4267974.50	RISK		
2,363	631014.44	4268074.50	RISK		
2,364	631014.44	4268174.50	RISK		
2,365	631014.44	4268274.50	RISK		
2,366	631014.44	4268374.50	RISK		

# Receptor Pathway

AERMOD

2,367	631014.44	4268474.50	RISK	Option not Selected	Option not Selected
2,368	631014.44	4268574.50	RISK		
2,369	631014.44	4268674.50	RISK		
2,370	631014.44	4268774.50	RISK		
2,371	631014.44	4268874.50	RISK		
2,372	631014.44	4268974.50	RISK		
2,373	631014.44	4269074.50	RISK		
2,374	631014.44	4269174.50	RISK		
2,375	631014.44	4269274.50	RISK		
2,376	631014.44	4269374.50	RISK		
2,377	631014.44	4269474.50	RISK		
2,378	631014.44	4269574.50	RISK		
2,379	631014.44	4269674.50	RISK		
2,380	631114.44	4263674.50	RISK		
2,381	631114.44	4263774.50	RISK		
2,382	631114.44	4263874.50	RISK		
2,383	631114.44	4263974.50	RISK		
2,384	631114.44	4264074.50	RISK		
2,385	631114.44	4264174.50	RISK		
2,386	631114.44	4264274.50	RISK		
2,387	631114.44	4264374.50	RISK		
2,388	631114.44	4264474.50	RISK		
2,389	631114.44	4264574.50	RISK		
2,390	631114.44	4264674.50	RISK		
2,391	631114.44	4264774.50	RISK		
2,392	631114.44	4264874.50	RISK		
2,393	631114.44	4264974.50	RISK		
2,394	631114.44	4265074.50	RISK		
2,395	631114.44	4265174.50	RISK		
2,396	631114.44	4265274.50	RISK		
2,397	631114.44	4265374.50	RISK		
2,398	631114.44	4265474.50	RISK		
2,399	631114.44	4265574.50	RISK		
2,400	631114.44	4265674.50	RISK		
2,401	631114.44	4265774.50	RISK		
2,402	631114.44	4265874.50	RISK		
2,403	631114.44	4265974.50	RISK		
2,404	631114.44	4266074.50	RISK		
2,405	631114.44	4266174.50	RISK		
2,406	631114.44	4266274.50	RISK		
2,407	631114.44	4266374.50	RISK		

# Receptor Pathway

AERMOD

2,408	631114.44	4266474.50	RISK	Option not Selected	Option not Selected
2,409	631114.44	4266574.50	RISK		
2,410	631114.44	4266674.50	RISK		
2,411	631114.44	4266774.50	RISK		
2,412	631114.44	4266874.50	RISK		
2,413	631114.44	4266974.50	RISK		
2,414	631114.44	4267074.50	RISK		
2,415	631114.44	4267174.50	RISK		
2,416	631114.44	4267274.50	RISK		
2,417	631114.44	4267374.50	RISK		
2,418	631114.44	4267474.50	RISK		
2,419	631114.44	4267574.50	RISK		
2,420	631114.44	4267674.50	RISK		
2,421	631114.44	4267774.50	RISK		
2,422	631114.44	4267874.50	RISK		
2,423	631114.44	4267974.50	RISK		
2,424	631114.44	4268074.50	RISK		
2,425	631114.44	4268174.50	RISK		
2,426	631114.44	4268274.50	RISK		
2,427	631114.44	4268374.50	RISK		
2,428	631114.44	4268474.50	RISK		
2,429	631114.44	4268574.50	RISK		
2,430	631114.44	4268674.50	RISK		
2,431	631114.44	4268774.50	RISK		
2,432	631114.44	4268874.50	RISK		
2,433	631114.44	4268974.50	RISK		
2,434	631114.44	4269074.50	RISK		
2,435	631114.44	4269174.50	RISK		
2,436	631114.44	4269274.50	RISK		
2,437	631114.44	4269374.50	RISK		
2,438	631114.44	4269474.50	RISK		
2,439	631114.44	4269574.50	RISK		
2,440	631114.44	4269674.50	RISK		
2,441	631214.44	4263674.50	RISK		
2,442	631214.44	4263774.50	RISK		
2,443	631214.44	4263874.50	RISK		
2,444	631214.44	4263974.50	RISK		
2,445	631214.44	4264074.50	RISK		
2,446	631214.44	4264174.50	RISK		
2,447	631214.44	4264274.50	RISK		
2,448	631214.44	4264374.50	RISK		

# Receptor Pathway

AERMOD

2,449	631214.44	4264474.50	RISK	Option not Selected	Option not Selected
2,450	631214.44	4264574.50	RISK		
2,451	631214.44	4264674.50	RISK		
2,452	631214.44	4264774.50	RISK		
2,453	631214.44	4264874.50	RISK		
2,454	631214.44	4264974.50	RISK		
2,455	631214.44	4265074.50	RISK		
2,456	631214.44	4265174.50	RISK		
2,457	631214.44	4265274.50	RISK		
2,458	631214.44	4265374.50	RISK		
2,459	631214.44	4265474.50	RISK		
2,460	631214.44	4265574.50	RISK		
2,461	631214.44	4265674.50	RISK		
2,462	631214.44	4265774.50	RISK		
2,463	631214.44	4265874.50	RISK		
2,464	631214.44	4265974.50	RISK		
2,465	631214.44	4266074.50	RISK		
2,466	631214.44	4266174.50	RISK		
2,467	631214.44	4266274.50	RISK		
2,468	631214.44	4266374.50	RISK		
2,469	631214.44	4266474.50	RISK		
2,470	631214.44	4266574.50	RISK		
2,471	631214.44	4266674.50	RISK		
2,472	631214.44	4266774.50	RISK		
2,473	631214.44	4266874.50	RISK		
2,474	631214.44	4266974.50	RISK		
2,475	631214.44	4267074.50	RISK		
2,476	631214.44	4267174.50	RISK		
2,477	631214.44	4267274.50	RISK		
2,478	631214.44	4267374.50	RISK		
2,479	631214.44	4267474.50	RISK		
2,480	631214.44	4267574.50	RISK		
2,481	631214.44	4267674.50	RISK		
2,482	631214.44	4267774.50	RISK		
2,483	631214.44	4267874.50	RISK		
2,484	631214.44	4267974.50	RISK		
2,485	631214.44	4268074.50	RISK		
2,486	631214.44	4268174.50	RISK		
2,487	631214.44	4268274.50	RISK		
2,488	631214.44	4268374.50	RISK		
2,489	631214.44	4268474.50	RISK		

# Receptor Pathway

AERMOD

2,490	631214.44	4268574.50	RISK	Option not Selected	Option not Selected
2,491	631214.44	4268674.50	RISK		
2,492	631214.44	4268774.50	RISK		
2,493	631214.44	4268874.50	RISK		
2,494	631214.44	4268974.50	RISK		
2,495	631214.44	4269074.50	RISK		
2,496	631214.44	4269174.50	RISK		
2,497	631214.44	4269274.50	RISK		
2,498	631214.44	4269374.50	RISK		
2,499	631214.44	4269474.50	RISK		
2,500	631214.44	4269574.50	RISK		
2,501	631214.44	4269674.50	RISK		
2,502	631314.44	4263674.50	RISK		
2,503	631314.44	4263774.50	RISK		
2,504	631314.44	4263874.50	RISK		
2,505	631314.44	4263974.50	RISK		
2,506	631314.44	4264074.50	RISK		
2,507	631314.44	4264174.50	RISK		
2,508	631314.44	4264274.50	RISK		
2,509	631314.44	4264374.50	RISK		
2,510	631314.44	4264474.50	RISK		
2,511	631314.44	4264574.50	RISK		
2,512	631314.44	4264674.50	RISK		
2,513	631314.44	4264774.50	RISK		
2,514	631314.44	4264874.50	RISK		
2,515	631314.44	4264974.50	RISK		
2,516	631314.44	4265074.50	RISK		
2,517	631314.44	4265174.50	RISK		
2,518	631314.44	4265274.50	RISK		
2,519	631314.44	4265374.50	RISK		
2,520	631314.44	4265474.50	RISK		
2,521	631314.44	4265574.50	RISK		
2,522	631314.44	4265674.50	RISK		
2,523	631314.44	4265774.50	RISK		
2,524	631314.44	4265874.50	RISK		
2,525	631314.44	4265974.50	RISK		
2,526	631314.44	4266074.50	RISK		
2,527	631314.44	4266174.50	RISK		
2,528	631314.44	4266274.50	RISK		
2,529	631314.44	4266374.50	RISK		
2,530	631314.44	4266474.50	RISK		

# Receptor Pathway

AERMOD

2,531	631314.44	4266574.50	RISK	Option not Selected	Option not Selected
2,532	631314.44	4266674.50	RISK		
2,533	631314.44	4266774.50	RISK		
2,534	631314.44	4266874.50	RISK		
2,535	631314.44	4266974.50	RISK		
2,536	631314.44	4267074.50	RISK		
2,537	631314.44	4267174.50	RISK		
2,538	631314.44	4267274.50	RISK		
2,539	631314.44	4267374.50	RISK		
2,540	631314.44	4267474.50	RISK		
2,541	631314.44	4267574.50	RISK		
2,542	631314.44	4267674.50	RISK		
2,543	631314.44	4267774.50	RISK		
2,544	631314.44	4267874.50	RISK		
2,545	631314.44	4267974.50	RISK		
2,546	631314.44	4268074.50	RISK		
2,547	631314.44	4268174.50	RISK		
2,548	631314.44	4268274.50	RISK		
2,549	631314.44	4268374.50	RISK		
2,550	631314.44	4268474.50	RISK		
2,551	631314.44	4268574.50	RISK		
2,552	631314.44	4268674.50	RISK		
2,553	631314.44	4268774.50	RISK		
2,554	631314.44	4268874.50	RISK		
2,555	631314.44	4268974.50	RISK		
2,556	631314.44	4269074.50	RISK		
2,557	631314.44	4269174.50	RISK		
2,558	631314.44	4269274.50	RISK		
2,559	631314.44	4269374.50	RISK		
2,560	631314.44	4269474.50	RISK		
2,561	631314.44	4269574.50	RISK		
2,562	631314.44	4269674.50	RISK		
2,563	631414.44	4263674.50	RISK		
2,564	631414.44	4263774.50	RISK		
2,565	631414.44	4263874.50	RISK		
2,566	631414.44	4263974.50	RISK		
2,567	631414.44	4264074.50	RISK		
2,568	631414.44	4264174.50	RISK		
2,569	631414.44	4264274.50	RISK		
2,570	631414.44	4264374.50	RISK		
2,571	631414.44	4264474.50	RISK		

# Receptor Pathway

AERMOD

2,572	631414.44	4264574.50	RISK	Option not Selected	Option not Selected
2,573	631414.44	4264674.50	RISK		
2,574	631414.44	4264774.50	RISK		
2,575	631414.44	4264874.50	RISK		
2,576	631414.44	4264974.50	RISK		
2,577	631414.44	4265074.50	RISK		
2,578	631414.44	4265174.50	RISK		
2,579	631414.44	4265274.50	RISK		
2,580	631414.44	4265374.50	RISK		
2,581	631414.44	4265474.50	RISK		
2,582	631414.44	4265574.50	RISK		
2,583	631414.44	4265674.50	RISK		
2,584	631414.44	4265774.50	RISK		
2,585	631414.44	4265874.50	RISK		
2,586	631414.44	4265974.50	RISK		
2,587	631414.44	4266074.50	RISK		
2,588	631414.44	4266174.50	RISK		
2,589	631414.44	4266274.50	RISK		
2,590	631414.44	4266374.50	RISK		
2,591	631414.44	4266474.50	RISK		
2,592	631414.44	4266574.50	RISK		
2,593	631414.44	4266674.50	RISK		
2,594	631414.44	4266774.50	RISK		
2,595	631414.44	4266874.50	RISK		
2,596	631414.44	4266974.50	RISK		
2,597	631414.44	4267074.50	RISK		
2,598	631414.44	4267174.50	RISK		
2,599	631414.44	4267274.50	RISK		
2,600	631414.44	4267374.50	RISK		
2,601	631414.44	4267474.50	RISK		
2,602	631414.44	4267574.50	RISK		
2,603	631414.44	4267674.50	RISK		
2,604	631414.44	4267774.50	RISK		
2,605	631414.44	4267874.50	RISK		
2,606	631414.44	4267974.50	RISK		
2,607	631414.44	4268074.50	RISK		
2,608	631414.44	4268174.50	RISK		
2,609	631414.44	4268274.50	RISK		
2,610	631414.44	4268374.50	RISK		
2,611	631414.44	4268474.50	RISK		
2,612	631414.44	4268574.50	RISK		

# Receptor Pathway

AERMOD

2,613	631414.44	4268674.50	RISK	Option not Selected	Option not Selected
2,614	631414.44	4268774.50	RISK		
2,615	631414.44	4268874.50	RISK		
2,616	631414.44	4268974.50	RISK		
2,617	631414.44	4269074.50	RISK		
2,618	631414.44	4269174.50	RISK		
2,619	631414.44	4269274.50	RISK		
2,620	631414.44	4269374.50	RISK		
2,621	631414.44	4269474.50	RISK		
2,622	631414.44	4269574.50	RISK		
2,623	631414.44	4269674.50	RISK		
2,624	631514.44	4263674.50	RISK		
2,625	631514.44	4263774.50	RISK		
2,626	631514.44	4263874.50	RISK		
2,627	631514.44	4263974.50	RISK		
2,628	631514.44	4264074.50	RISK		
2,629	631514.44	4264174.50	RISK		
2,630	631514.44	4264274.50	RISK		
2,631	631514.44	4264374.50	RISK		
2,632	631514.44	4264474.50	RISK		
2,633	631514.44	4264574.50	RISK		
2,634	631514.44	4264674.50	RISK		
2,635	631514.44	4264774.50	RISK		
2,636	631514.44	4264874.50	RISK		
2,637	631514.44	4264974.50	RISK		
2,638	631514.44	4265074.50	RISK		
2,639	631514.44	4265174.50	RISK		
2,640	631514.44	4265274.50	RISK		
2,641	631514.44	4265374.50	RISK		
2,642	631514.44	4265474.50	RISK		
2,643	631514.44	4265574.50	RISK		
2,644	631514.44	4265674.50	RISK		
2,645	631514.44	4265774.50	RISK		
2,646	631514.44	4265874.50	RISK		
2,647	631514.44	4265974.50	RISK		
2,648	631514.44	4266074.50	RISK		
2,649	631514.44	4266174.50	RISK		
2,650	631514.44	4266274.50	RISK		
2,651	631514.44	4266374.50	RISK		
2,652	631514.44	4266474.50	RISK		
2,653	631514.44	4266574.50	RISK		

# Receptor Pathway

AERMOD

2,654	631514.44	4266674.50	RISK	Option not Selected	Option not Selected
2,655	631514.44	4266774.50	RISK		
2,656	631514.44	4266874.50	RISK		
2,657	631514.44	4266974.50	RISK		
2,658	631514.44	4267074.50	RISK		
2,659	631514.44	4267174.50	RISK		
2,660	631514.44	4267274.50	RISK		
2,661	631514.44	4267374.50	RISK		
2,662	631514.44	4267474.50	RISK		
2,663	631514.44	4267574.50	RISK		
2,664	631514.44	4267674.50	RISK		
2,665	631514.44	4267774.50	RISK		
2,666	631514.44	4267874.50	RISK		
2,667	631514.44	4267974.50	RISK		
2,668	631514.44	4268074.50	RISK		
2,669	631514.44	4268174.50	RISK		
2,670	631514.44	4268274.50	RISK		
2,671	631514.44	4268374.50	RISK		
2,672	631514.44	4268474.50	RISK		
2,673	631514.44	4268574.50	RISK		
2,674	631514.44	4268674.50	RISK		
2,675	631514.44	4268774.50	RISK		
2,676	631514.44	4268874.50	RISK		
2,677	631514.44	4268974.50	RISK		
2,678	631514.44	4269074.50	RISK		
2,679	631514.44	4269174.50	RISK		
2,680	631514.44	4269274.50	RISK		
2,681	631514.44	4269374.50	RISK		
2,682	631514.44	4269474.50	RISK		
2,683	631514.44	4269574.50	RISK		
2,684	631514.44	4269674.50	RISK		
2,685	631614.44	4263674.50	RISK		
2,686	631614.44	4263774.50	RISK		
2,687	631614.44	4263874.50	RISK		
2,688	631614.44	4263974.50	RISK		
2,689	631614.44	4264074.50	RISK		
2,690	631614.44	4264174.50	RISK		
2,691	631614.44	4264274.50	RISK		
2,692	631614.44	4264374.50	RISK		
2,693	631614.44	4264474.50	RISK		
2,694	631614.44	4264574.50	RISK		

# Receptor Pathway

AERMOD

2,695	631614.44	4264674.50	RISK	Option not Selected	Option not Selected
2,696	631614.44	4264774.50	RISK		
2,697	631614.44	4264874.50	RISK		
2,698	631614.44	4264974.50	RISK		
2,699	631614.44	4265074.50	RISK		
2,700	631614.44	4265174.50	RISK		
2,701	631614.44	4265274.50	RISK		
2,702	631614.44	4265374.50	RISK		
2,703	631614.44	4265474.50	RISK		
2,704	631614.44	4265574.50	RISK		
2,705	631614.44	4265674.50	RISK		
2,706	631614.44	4265774.50	RISK		
2,707	631614.44	4265874.50	RISK		
2,708	631614.44	4265974.50	RISK		
2,709	631614.44	4266074.50	RISK		
2,710	631614.44	4266174.50	RISK		
2,711	631614.44	4266274.50	RISK		
2,712	631614.44	4266374.50	RISK		
2,713	631614.44	4266474.50	RISK		
2,714	631614.44	4266574.50	RISK		
2,715	631614.44	4266674.50	RISK		
2,716	631614.44	4266774.50	RISK		
2,717	631614.44	4266874.50	RISK		
2,718	631614.44	4266974.50	RISK		
2,719	631614.44	4267074.50	RISK		
2,720	631614.44	4267174.50	RISK		
2,721	631614.44	4267274.50	RISK		
2,722	631614.44	4267374.50	RISK		
2,723	631614.44	4267474.50	RISK		
2,724	631614.44	4267574.50	RISK		
2,725	631614.44	4267674.50	RISK		
2,726	631614.44	4267774.50	RISK		
2,727	631614.44	4267874.50	RISK		
2,728	631614.44	4267974.50	RISK		
2,729	631614.44	4268074.50	RISK		
2,730	631614.44	4268174.50	RISK		
2,731	631614.44	4268274.50	RISK		
2,732	631614.44	4268374.50	RISK		
2,733	631614.44	4268474.50	RISK		
2,734	631614.44	4268574.50	RISK		
2,735	631614.44	4268674.50	RISK		

# Receptor Pathway

AERMOD

2,736	631614.44	4268774.50	RISK	Option not Selected	Option not Selected
2,737	631614.44	4268874.50	RISK		
2,738	631614.44	4268974.50	RISK		
2,739	631614.44	4269074.50	RISK		
2,740	631614.44	4269174.50	RISK		
2,741	631614.44	4269274.50	RISK		
2,742	631614.44	4269374.50	RISK		
2,743	631614.44	4269474.50	RISK		
2,744	631614.44	4269574.50	RISK		
2,745	631614.44	4269674.50	RISK		
2,746	631714.44	4263674.50	RISK		
2,747	631714.44	4263774.50	RISK		
2,748	631714.44	4263874.50	RISK		
2,749	631714.44	4263974.50	RISK		
2,750	631714.44	4264074.50	RISK		
2,751	631714.44	4264174.50	RISK		
2,752	631714.44	4264274.50	RISK		
2,753	631714.44	4264374.50	RISK		
2,754	631714.44	4264474.50	RISK		
2,755	631714.44	4264574.50	RISK		
2,756	631714.44	4264674.50	RISK		
2,757	631714.44	4264774.50	RISK		
2,758	631714.44	4264874.50	RISK		
2,759	631714.44	4264974.50	RISK		
2,760	631714.44	4265074.50	RISK		
2,761	631714.44	4265174.50	RISK		
2,762	631714.44	4265274.50	RISK		
2,763	631714.44	4265374.50	RISK		
2,764	631714.44	4265474.50	RISK		
2,765	631714.44	4265574.50	RISK		
2,766	631714.44	4265674.50	RISK		
2,767	631714.44	4265774.50	RISK		
2,768	631714.44	4265874.50	RISK		
2,769	631714.44	4265974.50	RISK		
2,770	631714.44	4266074.50	RISK		
2,771	631714.44	4266174.50	RISK		
2,772	631714.44	4266274.50	RISK		
2,773	631714.44	4266374.50	RISK		
2,774	631714.44	4266474.50	RISK		
2,775	631714.44	4266574.50	RISK		
2,776	631714.44	4266674.50	RISK		

# Receptor Pathway

AERMOD

2,777	631714.44	4266774.50	RISK	Option not Selected	Option not Selected
2,778	631714.44	4266874.50	RISK		
2,779	631714.44	4266974.50	RISK		
2,780	631714.44	4267074.50	RISK		
2,781	631714.44	4267174.50	RISK		
2,782	631714.44	4267274.50	RISK		
2,783	631714.44	4267374.50	RISK		
2,784	631714.44	4267474.50	RISK		
2,785	631714.44	4267574.50	RISK		
2,786	631714.44	4267674.50	RISK		
2,787	631714.44	4267774.50	RISK		
2,788	631714.44	4267874.50	RISK		
2,789	631714.44	4267974.50	RISK		
2,790	631714.44	4268074.50	RISK		
2,791	631714.44	4268174.50	RISK		
2,792	631714.44	4268274.50	RISK		
2,793	631714.44	4268374.50	RISK		
2,794	631714.44	4268474.50	RISK		
2,795	631714.44	4268574.50	RISK		
2,796	631714.44	4268674.50	RISK		
2,797	631714.44	4268774.50	RISK		
2,798	631714.44	4268874.50	RISK		
2,799	631714.44	4268974.50	RISK		
2,800	631714.44	4269074.50	RISK		
2,801	631714.44	4269174.50	RISK		
2,802	631714.44	4269274.50	RISK		
2,803	631714.44	4269374.50	RISK		
2,804	631714.44	4269474.50	RISK		
2,805	631714.44	4269574.50	RISK		
2,806	631714.44	4269674.50	RISK		
2,807	631814.44	4263674.50	RISK		
2,808	631814.44	4263774.50	RISK		
2,809	631814.44	4263874.50	RISK		
2,810	631814.44	4263974.50	RISK		
2,811	631814.44	4264074.50	RISK		
2,812	631814.44	4264174.50	RISK		
2,813	631814.44	4264274.50	RISK		
2,814	631814.44	4264374.50	RISK		
2,815	631814.44	4264474.50	RISK		
2,816	631814.44	4264574.50	RISK		
2,817	631814.44	4264674.50	RISK		

# Receptor Pathway

AERMOD

2,818	631814.44	4264774.50	RISK	Option not Selected	Option not Selected
2,819	631814.44	4264874.50	RISK		
2,820	631814.44	4264974.50	RISK		
2,821	631814.44	4265074.50	RISK		
2,822	631814.44	4265174.50	RISK		
2,823	631814.44	4265274.50	RISK		
2,824	631814.44	4265374.50	RISK		
2,825	631814.44	4265474.50	RISK		
2,826	631814.44	4265574.50	RISK		
2,827	631814.44	4265674.50	RISK		
2,828	631814.44	4265774.50	RISK		
2,829	631814.44	4265874.50	RISK		
2,830	631814.44	4265974.50	RISK		
2,831	631814.44	4266074.50	RISK		
2,832	631814.44	4266174.50	RISK		
2,833	631814.44	4266274.50	RISK		
2,834	631814.44	4266374.50	RISK		
2,835	631814.44	4266474.50	RISK		
2,836	631814.44	4266574.50	RISK		
2,837	631814.44	4266674.50	RISK		
2,838	631814.44	4266774.50	RISK		
2,839	631814.44	4266874.50	RISK		
2,840	631814.44	4266974.50	RISK		
2,841	631814.44	4267074.50	RISK		
2,842	631814.44	4267174.50	RISK		
2,843	631814.44	4267274.50	RISK		
2,844	631814.44	4267374.50	RISK		
2,845	631814.44	4267474.50	RISK		
2,846	631814.44	4267574.50	RISK		
2,847	631814.44	4267674.50	RISK		
2,848	631814.44	4267774.50	RISK		
2,849	631814.44	4267874.50	RISK		
2,850	631814.44	4267974.50	RISK		
2,851	631814.44	4268074.50	RISK		
2,852	631814.44	4268174.50	RISK		
2,853	631814.44	4268274.50	RISK		
2,854	631814.44	4268374.50	RISK		
2,855	631814.44	4268474.50	RISK		
2,856	631814.44	4268574.50	RISK		
2,857	631814.44	4268674.50	RISK		
2,858	631814.44	4268774.50	RISK		

# Receptor Pathway

AERMOD

2,859	631814.44	4268874.50	RISK	Option not Selected	Option not Selected
2,860	631814.44	4268974.50	RISK		
2,861	631814.44	4269074.50	RISK		
2,862	631814.44	4269174.50	RISK		
2,863	631814.44	4269274.50	RISK		
2,864	631814.44	4269374.50	RISK		
2,865	631814.44	4269474.50	RISK		
2,866	631814.44	4269574.50	RISK		
2,867	631814.44	4269674.50	RISK		
2,868	631914.44	4263674.50	RISK		
2,869	631914.44	4263774.50	RISK		
2,870	631914.44	4263874.50	RISK		
2,871	631914.44	4263974.50	RISK		
2,872	631914.44	4264074.50	RISK		
2,873	631914.44	4264174.50	RISK		
2,874	631914.44	4264274.50	RISK		
2,875	631914.44	4264374.50	RISK		
2,876	631914.44	4264474.50	RISK		
2,877	631914.44	4264574.50	RISK		
2,878	631914.44	4264674.50	RISK		
2,879	631914.44	4264774.50	RISK		
2,880	631914.44	4264874.50	RISK		
2,881	631914.44	4264974.50	RISK		
2,882	631914.44	4265074.50	RISK		
2,883	631914.44	4265174.50	RISK		
2,884	631914.44	4265274.50	RISK		
2,885	631914.44	4265374.50	RISK		
2,886	631914.44	4265474.50	RISK		
2,887	631914.44	4265574.50	RISK		
2,888	631914.44	4265674.50	RISK		
2,889	631914.44	4265774.50	RISK		
2,890	631914.44	4265874.50	RISK		
2,891	631914.44	4265974.50	RISK		
2,892	631914.44	4266074.50	RISK		
2,893	631914.44	4266174.50	RISK		
2,894	631914.44	4266274.50	RISK		
2,895	631914.44	4266374.50	RISK		
2,896	631914.44	4266474.50	RISK		
2,897	631914.44	4266574.50	RISK		
2,898	631914.44	4266674.50	RISK		
2,899	631914.44	4266774.50	RISK		

# Receptor Pathway

AERMOD

2,900	631914.44	4266874.50	RISK	Option not Selected	Option not Selected
2,901	631914.44	4266974.50	RISK		
2,902	631914.44	4267074.50	RISK		
2,903	631914.44	4267174.50	RISK		
2,904	631914.44	4267274.50	RISK		
2,905	631914.44	4267374.50	RISK		
2,906	631914.44	4267474.50	RISK		
2,907	631914.44	4267574.50	RISK		
2,908	631914.44	4267674.50	RISK		
2,909	631914.44	4267774.50	RISK		
2,910	631914.44	4267874.50	RISK		
2,911	631914.44	4267974.50	RISK		
2,912	631914.44	4268074.50	RISK		
2,913	631914.44	4268174.50	RISK		
2,914	631914.44	4268274.50	RISK		
2,915	631914.44	4268374.50	RISK		
2,916	631914.44	4268474.50	RISK		
2,917	631914.44	4268574.50	RISK		
2,918	631914.44	4268674.50	RISK		
2,919	631914.44	4268774.50	RISK		
2,920	631914.44	4268874.50	RISK		
2,921	631914.44	4268974.50	RISK		
2,922	631914.44	4269074.50	RISK		
2,923	631914.44	4269174.50	RISK		
2,924	631914.44	4269274.50	RISK		
2,925	631914.44	4269374.50	RISK		
2,926	631914.44	4269474.50	RISK		
2,927	631914.44	4269574.50	RISK		
2,928	631914.44	4269674.50	RISK		
2,929	632014.44	4263674.50	RISK		
2,930	632014.44	4263774.50	RISK		
2,931	632014.44	4263874.50	RISK		
2,932	632014.44	4263974.50	RISK		
2,933	632014.44	4264074.50	RISK		
2,934	632014.44	4264174.50	RISK		
2,935	632014.44	4264274.50	RISK		
2,936	632014.44	4264374.50	RISK		
2,937	632014.44	4264474.50	RISK		
2,938	632014.44	4264574.50	RISK		
2,939	632014.44	4264674.50	RISK		
2,940	632014.44	4264774.50	RISK		

# Receptor Pathway

AERMOD

2,941	632014.44	4264874.50	RISK	Option not Selected	Option not Selected
2,942	632014.44	4264974.50	RISK		
2,943	632014.44	4265074.50	RISK		
2,944	632014.44	4265174.50	RISK		
2,945	632014.44	4265274.50	RISK		
2,946	632014.44	4265374.50	RISK		
2,947	632014.44	4265474.50	RISK		
2,948	632014.44	4265574.50	RISK		
2,949	632014.44	4265674.50	RISK		
2,950	632014.44	4265774.50	RISK		
2,951	632014.44	4265874.50	RISK		
2,952	632014.44	4265974.50	RISK		
2,953	632014.44	4266074.50	RISK		
2,954	632014.44	4266174.50	RISK		
2,955	632014.44	4266274.50	RISK		
2,956	632014.44	4266374.50	RISK		
2,957	632014.44	4266474.50	RISK		
2,958	632014.44	4266574.50	RISK		
2,959	632014.44	4266674.50	RISK		
2,960	632014.44	4266774.50	RISK		
2,961	632014.44	4266874.50	RISK		
2,962	632014.44	4266974.50	RISK		
2,963	632014.44	4267074.50	RISK		
2,964	632014.44	4267174.50	RISK		
2,965	632014.44	4267274.50	RISK		
2,966	632014.44	4267374.50	RISK		
2,967	632014.44	4267474.50	RISK		
2,968	632014.44	4267574.50	RISK		
2,969	632014.44	4267674.50	RISK		
2,970	632014.44	4267774.50	RISK		
2,971	632014.44	4267874.50	RISK		
2,972	632014.44	4267974.50	RISK		
2,973	632014.44	4268074.50	RISK		
2,974	632014.44	4268174.50	RISK		
2,975	632014.44	4268274.50	RISK		
2,976	632014.44	4268374.50	RISK		
2,977	632014.44	4268474.50	RISK		
2,978	632014.44	4268574.50	RISK		
2,979	632014.44	4268674.50	RISK		
2,980	632014.44	4268774.50	RISK		
2,981	632014.44	4268874.50	RISK		

# Receptor Pathway

AERMOD

2,982	632014.44	4268974.50	RISK	Option not Selected	Option not Selected
2,983	632014.44	4269074.50	RISK		
2,984	632014.44	4269174.50	RISK		
2,985	632014.44	4269274.50	RISK		
2,986	632014.44	4269374.50	RISK		
2,987	632014.44	4269474.50	RISK		
2,988	632014.44	4269574.50	RISK		
2,989	632014.44	4269674.50	RISK		
2,990	632114.44	4263674.50	RISK		
2,991	632114.44	4263774.50	RISK		
2,992	632114.44	4263874.50	RISK		
2,993	632114.44	4263974.50	RISK		
2,994	632114.44	4264074.50	RISK		
2,995	632114.44	4264174.50	RISK		
2,996	632114.44	4264274.50	RISK		
2,997	632114.44	4264374.50	RISK		
2,998	632114.44	4264474.50	RISK		
2,999	632114.44	4264574.50	RISK		
3,000	632114.44	4264674.50	RISK		
3,001	632114.44	4264774.50	RISK		
3,002	632114.44	4264874.50	RISK		
3,003	632114.44	4264974.50	RISK		
3,004	632114.44	4265074.50	RISK		
3,005	632114.44	4265174.50	RISK		
3,006	632114.44	4265274.50	RISK		
3,007	632114.44	4265374.50	RISK		
3,008	632114.44	4265474.50	RISK		
3,009	632114.44	4265574.50	RISK		
3,010	632114.44	4265674.50	RISK		
3,011	632114.44	4265774.50	RISK		
3,012	632114.44	4265874.50	RISK		
3,013	632114.44	4265974.50	RISK		
3,014	632114.44	4266074.50	RISK		
3,015	632114.44	4266174.50	RISK		
3,016	632114.44	4266274.50	RISK		
3,017	632114.44	4266374.50	RISK		
3,018	632114.44	4266474.50	RISK		
3,019	632114.44	4266574.50	RISK		
3,020	632114.44	4266674.50	RISK		
3,021	632114.44	4266774.50	RISK		
3,022	632114.44	4266874.50	RISK		

# Receptor Pathway

AERMOD

3,023	632114.44	4266974.50	RISK	Option not Selected	Option not Selected
3,024	632114.44	4267074.50	RISK		
3,025	632114.44	4267174.50	RISK		
3,026	632114.44	4267274.50	RISK		
3,027	632114.44	4267374.50	RISK		
3,028	632114.44	4267474.50	RISK		
3,029	632114.44	4267574.50	RISK		
3,030	632114.44	4267674.50	RISK		
3,031	632114.44	4267774.50	RISK		
3,032	632114.44	4267874.50	RISK		
3,033	632114.44	4267974.50	RISK		
3,034	632114.44	4268074.50	RISK		
3,035	632114.44	4268174.50	RISK		
3,036	632114.44	4268274.50	RISK		
3,037	632114.44	4268374.50	RISK		
3,038	632114.44	4268474.50	RISK		
3,039	632114.44	4268574.50	RISK		
3,040	632114.44	4268674.50	RISK		
3,041	632114.44	4268774.50	RISK		
3,042	632114.44	4268874.50	RISK		
3,043	632114.44	4268974.50	RISK		
3,044	632114.44	4269074.50	RISK		
3,045	632114.44	4269174.50	RISK		
3,046	632114.44	4269274.50	RISK		
3,047	632114.44	4269374.50	RISK		
3,048	632114.44	4269474.50	RISK		
3,049	632114.44	4269574.50	RISK		
3,050	632114.44	4269674.50	RISK		
3,051	632214.44	4263674.50	RISK		
3,052	632214.44	4263774.50	RISK		
3,053	632214.44	4263874.50	RISK		
3,054	632214.44	4263974.50	RISK		
3,055	632214.44	4264074.50	RISK		
3,056	632214.44	4264174.50	RISK		
3,057	632214.44	4264274.50	RISK		
3,058	632214.44	4264374.50	RISK		
3,059	632214.44	4264474.50	RISK		
3,060	632214.44	4264574.50	RISK		
3,061	632214.44	4264674.50	RISK		
3,062	632214.44	4264774.50	RISK		
3,063	632214.44	4264874.50	RISK		

# Receptor Pathway

AERMOD

3,064	632214.44	4264974.50	RISK	Option not Selected	Option not Selected
3,065	632214.44	4265074.50	RISK		
3,066	632214.44	4265174.50	RISK		
3,067	632214.44	4265274.50	RISK		
3,068	632214.44	4265374.50	RISK		
3,069	632214.44	4265474.50	RISK		
3,070	632214.44	4265574.50	RISK		
3,071	632214.44	4265674.50	RISK		
3,072	632214.44	4265774.50	RISK		
3,073	632214.44	4265874.50	RISK		
3,074	632214.44	4265974.50	RISK		
3,075	632214.44	4266074.50	RISK		
3,076	632214.44	4266174.50	RISK		
3,077	632214.44	4266274.50	RISK		
3,078	632214.44	4266374.50	RISK		
3,079	632214.44	4266474.50	RISK		
3,080	632214.44	4266574.50	RISK		
3,081	632214.44	4266674.50	RISK		
3,082	632214.44	4266774.50	RISK		
3,083	632214.44	4266874.50	RISK		
3,084	632214.44	4266974.50	RISK		
3,085	632214.44	4267074.50	RISK		
3,086	632214.44	4267174.50	RISK		
3,087	632214.44	4267274.50	RISK		
3,088	632214.44	4267374.50	RISK		
3,089	632214.44	4267474.50	RISK		
3,090	632214.44	4267574.50	RISK		
3,091	632214.44	4267674.50	RISK		
3,092	632214.44	4267774.50	RISK		
3,093	632214.44	4267874.50	RISK		
3,094	632214.44	4267974.50	RISK		
3,095	632214.44	4268074.50	RISK		
3,096	632214.44	4268174.50	RISK		
3,097	632214.44	4268274.50	RISK		
3,098	632214.44	4268374.50	RISK		
3,099	632214.44	4268474.50	RISK		
3,100	632214.44	4268574.50	RISK		
3,101	632214.44	4268674.50	RISK		
3,102	632214.44	4268774.50	RISK		
3,103	632214.44	4268874.50	RISK		
3,104	632214.44	4268974.50	RISK		

# Receptor Pathway

AERMOD

3,105	632214.44	4269074.50	RISK	Option not Selected	Option not Selected
3,106	632214.44	4269174.50	RISK		
3,107	632214.44	4269274.50	RISK		
3,108	632214.44	4269374.50	RISK		
3,109	632214.44	4269474.50	RISK		
3,110	632214.44	4269574.50	RISK		
3,111	632214.44	4269674.50	RISK		
3,112	632314.44	4263674.50	RISK		
3,113	632314.44	4263774.50	RISK		
3,114	632314.44	4263874.50	RISK		
3,115	632314.44	4263974.50	RISK		
3,116	632314.44	4264074.50	RISK		
3,117	632314.44	4264174.50	RISK		
3,118	632314.44	4264274.50	RISK		
3,119	632314.44	4264374.50	RISK		
3,120	632314.44	4264474.50	RISK		
3,121	632314.44	4264574.50	RISK		
3,122	632314.44	4264674.50	RISK		
3,123	632314.44	4264774.50	RISK		
3,124	632314.44	4264874.50	RISK		
3,125	632314.44	4264974.50	RISK		
3,126	632314.44	4265074.50	RISK		
3,127	632314.44	4265174.50	RISK		
3,128	632314.44	4265274.50	RISK		
3,129	632314.44	4265374.50	RISK		
3,130	632314.44	4265474.50	RISK		
3,131	632314.44	4265574.50	RISK		
3,132	632314.44	4265674.50	RISK		
3,133	632314.44	4265774.50	RISK		
3,134	632314.44	4265874.50	RISK		
3,135	632314.44	4265974.50	RISK		
3,136	632314.44	4266074.50	RISK		
3,137	632314.44	4266174.50	RISK		
3,138	632314.44	4266274.50	RISK		
3,139	632314.44	4266374.50	RISK		
3,140	632314.44	4266474.50	RISK		
3,141	632314.44	4266574.50	RISK		
3,142	632314.44	4266674.50	RISK		
3,143	632314.44	4266774.50	RISK		
3,144	632314.44	4266874.50	RISK		
3,145	632314.44	4266974.50	RISK		

# Receptor Pathway

AERMOD

3,146	632314.44	4267074.50	RISK	Option not Selected	Option not Selected
3,147	632314.44	4267174.50	RISK		
3,148	632314.44	4267274.50	RISK		
3,149	632314.44	4267374.50	RISK		
3,150	632314.44	4267474.50	RISK		
3,151	632314.44	4267574.50	RISK		
3,152	632314.44	4267674.50	RISK		
3,153	632314.44	4267774.50	RISK		
3,154	632314.44	4267874.50	RISK		
3,155	632314.44	4267974.50	RISK		
3,156	632314.44	4268074.50	RISK		
3,157	632314.44	4268174.50	RISK		
3,158	632314.44	4268274.50	RISK		
3,159	632314.44	4268374.50	RISK		
3,160	632314.44	4268474.50	RISK		
3,161	632314.44	4268574.50	RISK		
3,162	632314.44	4268674.50	RISK		
3,163	632314.44	4268774.50	RISK		
3,164	632314.44	4268874.50	RISK		
3,165	632314.44	4268974.50	RISK		
3,166	632314.44	4269074.50	RISK		
3,167	632314.44	4269174.50	RISK		
3,168	632314.44	4269274.50	RISK		
3,169	632314.44	4269374.50	RISK		
3,170	632314.44	4269474.50	RISK		
3,171	632314.44	4269574.50	RISK		
3,172	632314.44	4269674.50	RISK		
3,173	632414.44	4263674.50	RISK		
3,174	632414.44	4263774.50	RISK		
3,175	632414.44	4263874.50	RISK		
3,176	632414.44	4263974.50	RISK		
3,177	632414.44	4264074.50	RISK		
3,178	632414.44	4264174.50	RISK		
3,179	632414.44	4264274.50	RISK		
3,180	632414.44	4264374.50	RISK		
3,181	632414.44	4264474.50	RISK		
3,182	632414.44	4264574.50	RISK		
3,183	632414.44	4264674.50	RISK		
3,184	632414.44	4264774.50	RISK		
3,185	632414.44	4264874.50	RISK		
3,186	632414.44	4264974.50	RISK		

# Receptor Pathway

AERMOD

3,187	632414.44	4265074.50	RISK	Option not Selected	Option not Selected
3,188	632414.44	4265174.50	RISK		
3,189	632414.44	4265274.50	RISK		
3,190	632414.44	4265374.50	RISK		
3,191	632414.44	4265474.50	RISK		
3,192	632414.44	4265574.50	RISK		
3,193	632414.44	4265674.50	RISK		
3,194	632414.44	4265774.50	RISK		
3,195	632414.44	4265874.50	RISK		
3,196	632414.44	4265974.50	RISK		
3,197	632414.44	4266074.50	RISK		
3,198	632414.44	4266174.50	RISK		
3,199	632414.44	4266274.50	RISK		
3,200	632414.44	4266374.50	RISK		
3,201	632414.44	4266474.50	RISK		
3,202	632414.44	4266574.50	RISK		
3,203	632414.44	4266674.50	RISK		
3,204	632414.44	4266774.50	RISK		
3,205	632414.44	4266874.50	RISK		
3,206	632414.44	4266974.50	RISK		
3,207	632414.44	4267074.50	RISK		
3,208	632414.44	4267174.50	RISK		
3,209	632414.44	4267274.50	RISK		
3,210	632414.44	4267374.50	RISK		
3,211	632414.44	4267474.50	RISK		
3,212	632414.44	4267574.50	RISK		
3,213	632414.44	4267674.50	RISK		
3,214	632414.44	4267774.50	RISK		
3,215	632414.44	4267874.50	RISK		
3,216	632414.44	4267974.50	RISK		
3,217	632414.44	4268074.50	RISK		
3,218	632414.44	4268174.50	RISK		
3,219	632414.44	4268274.50	RISK		
3,220	632414.44	4268374.50	RISK		
3,221	632414.44	4268474.50	RISK		
3,222	632414.44	4268574.50	RISK		
3,223	632414.44	4268674.50	RISK		
3,224	632414.44	4268774.50	RISK		
3,225	632414.44	4268874.50	RISK		
3,226	632414.44	4268974.50	RISK		
3,227	632414.44	4269074.50	RISK		

# Receptor Pathway

AERMOD

3,228	632414.44	4269174.50	RISK	Option not Selected	Option not Selected
3,229	632414.44	4269274.50	RISK		
3,230	632414.44	4269374.50	RISK		
3,231	632414.44	4269474.50	RISK		
3,232	632414.44	4269574.50	RISK		
3,233	632414.44	4269674.50	RISK		
3,234	632514.44	4263674.50	RISK		
3,235	632514.44	4263774.50	RISK		
3,236	632514.44	4263874.50	RISK		
3,237	632514.44	4263974.50	RISK		
3,238	632514.44	4264074.50	RISK		
3,239	632514.44	4264174.50	RISK		
3,240	632514.44	4264274.50	RISK		
3,241	632514.44	4264374.50	RISK		
3,242	632514.44	4264474.50	RISK		
3,243	632514.44	4264574.50	RISK		
3,244	632514.44	4264674.50	RISK		
3,245	632514.44	4264774.50	RISK		
3,246	632514.44	4264874.50	RISK		
3,247	632514.44	4264974.50	RISK		
3,248	632514.44	4265074.50	RISK		
3,249	632514.44	4265174.50	RISK		
3,250	632514.44	4265274.50	RISK		
3,251	632514.44	4265374.50	RISK		
3,252	632514.44	4265474.50	RISK		
3,253	632514.44	4265574.50	RISK		
3,254	632514.44	4265674.50	RISK		
3,255	632514.44	4265774.50	RISK		
3,256	632514.44	4265874.50	RISK		
3,257	632514.44	4265974.50	RISK		
3,258	632514.44	4266074.50	RISK		
3,259	632514.44	4266174.50	RISK		
3,260	632514.44	4266274.50	RISK		
3,261	632514.44	4266374.50	RISK		
3,262	632514.44	4266474.50	RISK		
3,263	632514.44	4266574.50	RISK		
3,264	632514.44	4266674.50	RISK		
3,265	632514.44	4266774.50	RISK		
3,266	632514.44	4266874.50	RISK		
3,267	632514.44	4266974.50	RISK		
3,268	632514.44	4267074.50	RISK		

# Receptor Pathway

AERMOD

3,269	632514.44	4267174.50	RISK	Option not Selected	Option not Selected
3,270	632514.44	4267274.50	RISK		
3,271	632514.44	4267374.50	RISK		
3,272	632514.44	4267474.50	RISK		
3,273	632514.44	4267574.50	RISK		
3,274	632514.44	4267674.50	RISK		
3,275	632514.44	4267774.50	RISK		
3,276	632514.44	4267874.50	RISK		
3,277	632514.44	4267974.50	RISK		
3,278	632514.44	4268074.50	RISK		
3,279	632514.44	4268174.50	RISK		
3,280	632514.44	4268274.50	RISK		
3,281	632514.44	4268374.50	RISK		
3,282	632514.44	4268474.50	RISK		
3,283	632514.44	4268574.50	RISK		
3,284	632514.44	4268674.50	RISK		
3,285	632514.44	4268774.50	RISK		
3,286	632514.44	4268874.50	RISK		
3,287	632514.44	4268974.50	RISK		
3,288	632514.44	4269074.50	RISK		
3,289	632514.44	4269174.50	RISK		
3,290	632514.44	4269274.50	RISK		
3,291	632514.44	4269374.50	RISK		
3,292	632514.44	4269474.50	RISK		
3,293	632514.44	4269574.50	RISK		
3,294	632514.44	4269674.50	RISK		
3,295	632614.44	4263674.50	RISK		
3,296	632614.44	4263774.50	RISK		
3,297	632614.44	4263874.50	RISK		
3,298	632614.44	4263974.50	RISK		
3,299	632614.44	4264074.50	RISK		
3,300	632614.44	4264174.50	RISK		
3,301	632614.44	4264274.50	RISK		
3,302	632614.44	4264374.50	RISK		
3,303	632614.44	4264474.50	RISK		
3,304	632614.44	4264574.50	RISK		
3,305	632614.44	4264674.50	RISK		
3,306	632614.44	4264774.50	RISK		
3,307	632614.44	4264874.50	RISK		
3,308	632614.44	4264974.50	RISK		
3,309	632614.44	4265074.50	RISK		

# Receptor Pathway

AERMOD

3,310	632614.44	4265174.50	RISK	Option not Selected	Option not Selected
3,311	632614.44	4265274.50	RISK		
3,312	632614.44	4265374.50	RISK		
3,313	632614.44	4265474.50	RISK		
3,314	632614.44	4265574.50	RISK		
3,315	632614.44	4265674.50	RISK		
3,316	632614.44	4265774.50	RISK		
3,317	632614.44	4265874.50	RISK		
3,318	632614.44	4265974.50	RISK		
3,319	632614.44	4266074.50	RISK		
3,320	632614.44	4266174.50	RISK		
3,321	632614.44	4266274.50	RISK		
3,322	632614.44	4266374.50	RISK		
3,323	632614.44	4266474.50	RISK		
3,324	632614.44	4266574.50	RISK		
3,325	632614.44	4266674.50	RISK		
3,326	632614.44	4266774.50	RISK		
3,327	632614.44	4266874.50	RISK		
3,328	632614.44	4266974.50	RISK		
3,329	632614.44	4267074.50	RISK		
3,330	632614.44	4267174.50	RISK		
3,331	632614.44	4267274.50	RISK		
3,332	632614.44	4267374.50	RISK		
3,333	632614.44	4267474.50	RISK		
3,334	632614.44	4267574.50	RISK		
3,335	632614.44	4267674.50	RISK		
3,336	632614.44	4267774.50	RISK		
3,337	632614.44	4267874.50	RISK		
3,338	632614.44	4267974.50	RISK		
3,339	632614.44	4268074.50	RISK		
3,340	632614.44	4268174.50	RISK		
3,341	632614.44	4268274.50	RISK		
3,342	632614.44	4268374.50	RISK		
3,343	632614.44	4268474.50	RISK		
3,344	632614.44	4268574.50	RISK		
3,345	632614.44	4268674.50	RISK		
3,346	632614.44	4268774.50	RISK		
3,347	632614.44	4268874.50	RISK		
3,348	632614.44	4268974.50	RISK		
3,349	632614.44	4269074.50	RISK		
3,350	632614.44	4269174.50	RISK		

# Receptor Pathway

AERMOD

3,351	632614.44	4269274.50	RISK	Option not Selected	Option not Selected
3,352	632614.44	4269374.50	RISK		
3,353	632614.44	4269474.50	RISK		
3,354	632614.44	4269574.50	RISK		
3,355	632614.44	4269674.50	RISK		
3,356	632714.44	4263674.50	RISK		
3,357	632714.44	4263774.50	RISK		
3,358	632714.44	4263874.50	RISK		
3,359	632714.44	4263974.50	RISK		
3,360	632714.44	4264074.50	RISK		
3,361	632714.44	4264174.50	RISK		
3,362	632714.44	4264274.50	RISK		
3,363	632714.44	4264374.50	RISK		
3,364	632714.44	4264474.50	RISK		
3,365	632714.44	4264574.50	RISK		
3,366	632714.44	4264674.50	RISK		
3,367	632714.44	4264774.50	RISK		
3,368	632714.44	4264874.50	RISK		
3,369	632714.44	4264974.50	RISK		
3,370	632714.44	4265074.50	RISK		
3,371	632714.44	4265174.50	RISK		
3,372	632714.44	4265274.50	RISK		
3,373	632714.44	4265374.50	RISK		
3,374	632714.44	4265474.50	RISK		
3,375	632714.44	4265574.50	RISK		
3,376	632714.44	4265674.50	RISK		
3,377	632714.44	4265774.50	RISK		
3,378	632714.44	4265874.50	RISK		
3,379	632714.44	4265974.50	RISK		
3,380	632714.44	4266074.50	RISK		
3,381	632714.44	4266174.50	RISK		
3,382	632714.44	4266274.50	RISK		
3,383	632714.44	4266374.50	RISK		
3,384	632714.44	4266474.50	RISK		
3,385	632714.44	4266574.50	RISK		
3,386	632714.44	4266674.50	RISK		
3,387	632714.44	4266774.50	RISK		
3,388	632714.44	4266874.50	RISK		
3,389	632714.44	4266974.50	RISK		
3,390	632714.44	4267074.50	RISK		
3,391	632714.44	4267174.50	RISK		

# Receptor Pathway

AERMOD

3,392	632714.44	4267274.50	RISK	Option not Selected	Option not Selected
3,393	632714.44	4267374.50	RISK		
3,394	632714.44	4267474.50	RISK		
3,395	632714.44	4267574.50	RISK		
3,396	632714.44	4267674.50	RISK		
3,397	632714.44	4267774.50	RISK		
3,398	632714.44	4267874.50	RISK		
3,399	632714.44	4267974.50	RISK		
3,400	632714.44	4268074.50	RISK		
3,401	632714.44	4268174.50	RISK		
3,402	632714.44	4268274.50	RISK		
3,403	632714.44	4268374.50	RISK		
3,404	632714.44	4268474.50	RISK		
3,405	632714.44	4268574.50	RISK		
3,406	632714.44	4268674.50	RISK		
3,407	632714.44	4268774.50	RISK		
3,408	632714.44	4268874.50	RISK		
3,409	632714.44	4268974.50	RISK		
3,410	632714.44	4269074.50	RISK		
3,411	632714.44	4269174.50	RISK		
3,412	632714.44	4269274.50	RISK		
3,413	632714.44	4269374.50	RISK		
3,414	632714.44	4269474.50	RISK		
3,415	632714.44	4269574.50	RISK		
3,416	632714.44	4269674.50	RISK		
3,417	632814.44	4263674.50	RISK		
3,418	632814.44	4263774.50	RISK		
3,419	632814.44	4263874.50	RISK		
3,420	632814.44	4263974.50	RISK		
3,421	632814.44	4264074.50	RISK		
3,422	632814.44	4264174.50	RISK		
3,423	632814.44	4264274.50	RISK		
3,424	632814.44	4264374.50	RISK		
3,425	632814.44	4264474.50	RISK		
3,426	632814.44	4264574.50	RISK		
3,427	632814.44	4264674.50	RISK		
3,428	632814.44	4264774.50	RISK		
3,429	632814.44	4264874.50	RISK		
3,430	632814.44	4264974.50	RISK		
3,431	632814.44	4265074.50	RISK		
3,432	632814.44	4265174.50	RISK		

# Receptor Pathway

AERMOD

3,433	632814.44	4265274.50	RISK	Option not Selected	Option not Selected
3,434	632814.44	4265374.50	RISK		
3,435	632814.44	4265474.50	RISK		
3,436	632814.44	4265574.50	RISK		
3,437	632814.44	4265674.50	RISK		
3,438	632814.44	4265774.50	RISK		
3,439	632814.44	4265874.50	RISK		
3,440	632814.44	4265974.50	RISK		
3,441	632814.44	4266074.50	RISK		
3,442	632814.44	4266174.50	RISK		
3,443	632814.44	4266274.50	RISK		
3,444	632814.44	4266374.50	RISK		
3,445	632814.44	4266474.50	RISK		
3,446	632814.44	4266574.50	RISK		
3,447	632814.44	4266674.50	RISK		
3,448	632814.44	4266774.50	RISK		
3,449	632814.44	4266874.50	RISK		
3,450	632814.44	4266974.50	RISK		
3,451	632814.44	4267074.50	RISK		
3,452	632814.44	4267174.50	RISK		
3,453	632814.44	4267274.50	RISK		
3,454	632814.44	4267374.50	RISK		
3,455	632814.44	4267474.50	RISK		
3,456	632814.44	4267574.50	RISK		
3,457	632814.44	4267674.50	RISK		
3,458	632814.44	4267774.50	RISK		
3,459	632814.44	4267874.50	RISK		
3,460	632814.44	4267974.50	RISK		
3,461	632814.44	4268074.50	RISK		
3,462	632814.44	4268174.50	RISK		
3,463	632814.44	4268274.50	RISK		
3,464	632814.44	4268374.50	RISK		
3,465	632814.44	4268474.50	RISK		
3,466	632814.44	4268574.50	RISK		
3,467	632814.44	4268674.50	RISK		
3,468	632814.44	4268774.50	RISK		
3,469	632814.44	4268874.50	RISK		
3,470	632814.44	4268974.50	RISK		
3,471	632814.44	4269074.50	RISK		
3,472	632814.44	4269174.50	RISK		
3,473	632814.44	4269274.50	RISK		

# Receptor Pathway

AERMOD

3,474	632814.44	4269374.50	RISK	Option not Selected	Option not Selected
3,475	632814.44	4269474.50	RISK		
3,476	632814.44	4269574.50	RISK		
3,477	632814.44	4269674.50	RISK		
3,478	632914.44	4263674.50	RISK		
3,479	632914.44	4263774.50	RISK		
3,480	632914.44	4263874.50	RISK		
3,481	632914.44	4263974.50	RISK		
3,482	632914.44	4264074.50	RISK		
3,483	632914.44	4264174.50	RISK		
3,484	632914.44	4264274.50	RISK		
3,485	632914.44	4264374.50	RISK		
3,486	632914.44	4264474.50	RISK		
3,487	632914.44	4264574.50	RISK		
3,488	632914.44	4264674.50	RISK		
3,489	632914.44	4264774.50	RISK		
3,490	632914.44	4264874.50	RISK		
3,491	632914.44	4264974.50	RISK		
3,492	632914.44	4265074.50	RISK		
3,493	632914.44	4265174.50	RISK		
3,494	632914.44	4265274.50	RISK		
3,495	632914.44	4265374.50	RISK		
3,496	632914.44	4265474.50	RISK		
3,497	632914.44	4265574.50	RISK		
3,498	632914.44	4265674.50	RISK		
3,499	632914.44	4265774.50	RISK		
3,500	632914.44	4265874.50	RISK		
3,501	632914.44	4265974.50	RISK		
3,502	632914.44	4266074.50	RISK		
3,503	632914.44	4266174.50	RISK		
3,504	632914.44	4266274.50	RISK		
3,505	632914.44	4266374.50	RISK		
3,506	632914.44	4266474.50	RISK		
3,507	632914.44	4266574.50	RISK		
3,508	632914.44	4266674.50	RISK		
3,509	632914.44	4266774.50	RISK		
3,510	632914.44	4266874.50	RISK		
3,511	632914.44	4266974.50	RISK		
3,512	632914.44	4267074.50	RISK		
3,513	632914.44	4267174.50	RISK		
3,514	632914.44	4267274.50	RISK		

# Receptor Pathway

AERMOD

3,515	632914.44	4267374.50	RISK	Option not Selected	Option not Selected
3,516	632914.44	4267474.50	RISK		
3,517	632914.44	4267574.50	RISK		
3,518	632914.44	4267674.50	RISK		
3,519	632914.44	4267774.50	RISK		
3,520	632914.44	4267874.50	RISK		
3,521	632914.44	4267974.50	RISK		
3,522	632914.44	4268074.50	RISK		
3,523	632914.44	4268174.50	RISK		
3,524	632914.44	4268274.50	RISK		
3,525	632914.44	4268374.50	RISK		
3,526	632914.44	4268474.50	RISK		
3,527	632914.44	4268574.50	RISK		
3,528	632914.44	4268674.50	RISK		
3,529	632914.44	4268774.50	RISK		
3,530	632914.44	4268874.50	RISK		
3,531	632914.44	4268974.50	RISK		
3,532	632914.44	4269074.50	RISK		
3,533	632914.44	4269174.50	RISK		
3,534	632914.44	4269274.50	RISK		
3,535	632914.44	4269374.50	RISK		
3,536	632914.44	4269474.50	RISK		
3,537	632914.44	4269574.50	RISK		
3,538	632914.44	4269674.50	RISK		
3,539	633014.44	4263674.50	RISK		
3,540	633014.44	4263774.50	RISK		
3,541	633014.44	4263874.50	RISK		
3,542	633014.44	4263974.50	RISK		
3,543	633014.44	4264074.50	RISK		
3,544	633014.44	4264174.50	RISK		
3,545	633014.44	4264274.50	RISK		
3,546	633014.44	4264374.50	RISK		
3,547	633014.44	4264474.50	RISK		
3,548	633014.44	4264574.50	RISK		
3,549	633014.44	4264674.50	RISK		
3,550	633014.44	4264774.50	RISK		
3,551	633014.44	4264874.50	RISK		
3,552	633014.44	4264974.50	RISK		
3,553	633014.44	4265074.50	RISK		
3,554	633014.44	4265174.50	RISK		
3,555	633014.44	4265274.50	RISK		

# Receptor Pathway

AERMOD

3,556	633014.44	4265374.50	RISK	Option not Selected	Option not Selected
3,557	633014.44	4265474.50	RISK		
3,558	633014.44	4265574.50	RISK		
3,559	633014.44	4265674.50	RISK		
3,560	633014.44	4265774.50	RISK		
3,561	633014.44	4265874.50	RISK		
3,562	633014.44	4265974.50	RISK		
3,563	633014.44	4266074.50	RISK		
3,564	633014.44	4266174.50	RISK		
3,565	633014.44	4266274.50	RISK		
3,566	633014.44	4266374.50	RISK		
3,567	633014.44	4266474.50	RISK		
3,568	633014.44	4266574.50	RISK		
3,569	633014.44	4266674.50	RISK		
3,570	633014.44	4266774.50	RISK		
3,571	633014.44	4266874.50	RISK		
3,572	633014.44	4266974.50	RISK		
3,573	633014.44	4267074.50	RISK		
3,574	633014.44	4267174.50	RISK		
3,575	633014.44	4267274.50	RISK		
3,576	633014.44	4267374.50	RISK		
3,577	633014.44	4267474.50	RISK		
3,578	633014.44	4267574.50	RISK		
3,579	633014.44	4267674.50	RISK		
3,580	633014.44	4267774.50	RISK		
3,581	633014.44	4267874.50	RISK		
3,582	633014.44	4267974.50	RISK		
3,583	633014.44	4268074.50	RISK		
3,584	633014.44	4268174.50	RISK		
3,585	633014.44	4268274.50	RISK		
3,586	633014.44	4268374.50	RISK		
3,587	633014.44	4268474.50	RISK		
3,588	633014.44	4268574.50	RISK		
3,589	633014.44	4268674.50	RISK		
3,590	633014.44	4268774.50	RISK		
3,591	633014.44	4268874.50	RISK		
3,592	633014.44	4268974.50	RISK		
3,593	633014.44	4269074.50	RISK		
3,594	633014.44	4269174.50	RISK		
3,595	633014.44	4269274.50	RISK		
3,596	633014.44	4269374.50	RISK		

# Receptor Pathway

AERMOD

3,597	633014.44	4269474.50	RISK	Option not Selected	Option not Selected
3,598	633014.44	4269574.50	RISK		
3,599	633014.44	4269674.50	RISK		
3,600	633114.44	4263674.50	RISK		
3,601	633114.44	4263774.50	RISK		
3,602	633114.44	4263874.50	RISK		
3,603	633114.44	4263974.50	RISK		
3,604	633114.44	4264074.50	RISK		
3,605	633114.44	4264174.50	RISK		
3,606	633114.44	4264274.50	RISK		
3,607	633114.44	4264374.50	RISK		
3,608	633114.44	4264474.50	RISK		
3,609	633114.44	4264574.50	RISK		
3,610	633114.44	4264674.50	RISK		
3,611	633114.44	4264774.50	RISK		
3,612	633114.44	4264874.50	RISK		
3,613	633114.44	4264974.50	RISK		
3,614	633114.44	4265074.50	RISK		
3,615	633114.44	4265174.50	RISK		
3,616	633114.44	4265274.50	RISK		
3,617	633114.44	4265374.50	RISK		
3,618	633114.44	4265474.50	RISK		
3,619	633114.44	4265574.50	RISK		
3,620	633114.44	4265674.50	RISK		
3,621	633114.44	4265774.50	RISK		
3,622	633114.44	4265874.50	RISK		
3,623	633114.44	4265974.50	RISK		
3,624	633114.44	4266074.50	RISK		
3,625	633114.44	4266174.50	RISK		
3,626	633114.44	4266274.50	RISK		
3,627	633114.44	4266374.50	RISK		
3,628	633114.44	4266474.50	RISK		
3,629	633114.44	4266574.50	RISK		
3,630	633114.44	4266674.50	RISK		
3,631	633114.44	4266774.50	RISK		
3,632	633114.44	4266874.50	RISK		
3,633	633114.44	4266974.50	RISK		
3,634	633114.44	4267074.50	RISK		
3,635	633114.44	4267174.50	RISK		
3,636	633114.44	4267274.50	RISK		
3,637	633114.44	4267374.50	RISK		

# Receptor Pathway

AERMOD

3,638	633114.44	4267474.50	RISK	Option not Selected	Option not Selected
3,639	633114.44	4267574.50	RISK		
3,640	633114.44	4267674.50	RISK		
3,641	633114.44	4267774.50	RISK		
3,642	633114.44	4267874.50	RISK		
3,643	633114.44	4267974.50	RISK		
3,644	633114.44	4268074.50	RISK		
3,645	633114.44	4268174.50	RISK		
3,646	633114.44	4268274.50	RISK		
3,647	633114.44	4268374.50	RISK		
3,648	633114.44	4268474.50	RISK		
3,649	633114.44	4268574.50	RISK		
3,650	633114.44	4268674.50	RISK		
3,651	633114.44	4268774.50	RISK		
3,652	633114.44	4268874.50	RISK		
3,653	633114.44	4268974.50	RISK		
3,654	633114.44	4269074.50	RISK		
3,655	633114.44	4269174.50	RISK		
3,656	633114.44	4269274.50	RISK		
3,657	633114.44	4269374.50	RISK		
3,658	633114.44	4269474.50	RISK		
3,659	633114.44	4269574.50	RISK		
3,660	633114.44	4269674.50	RISK		
3,661	633214.44	4263674.50	RISK		
3,662	633214.44	4263774.50	RISK		
3,663	633214.44	4263874.50	RISK		
3,664	633214.44	4263974.50	RISK		
3,665	633214.44	4264074.50	RISK		
3,666	633214.44	4264174.50	RISK		
3,667	633214.44	4264274.50	RISK		
3,668	633214.44	4264374.50	RISK		
3,669	633214.44	4264474.50	RISK		
3,670	633214.44	4264574.50	RISK		
3,671	633214.44	4264674.50	RISK		
3,672	633214.44	4264774.50	RISK		
3,673	633214.44	4264874.50	RISK		
3,674	633214.44	4264974.50	RISK		
3,675	633214.44	4265074.50	RISK		
3,676	633214.44	4265174.50	RISK		
3,677	633214.44	4265274.50	RISK		
3,678	633214.44	4265374.50	RISK		

# Receptor Pathway

AERMOD

3,679	633214.44	4265474.50	RISK	Option not Selected	Option not Selected
3,680	633214.44	4265574.50	RISK		
3,681	633214.44	4265674.50	RISK		
3,682	633214.44	4265774.50	RISK		
3,683	633214.44	4265874.50	RISK		
3,684	633214.44	4265974.50	RISK		
3,685	633214.44	4266074.50	RISK		
3,686	633214.44	4266174.50	RISK		
3,687	633214.44	4266274.50	RISK		
3,688	633214.44	4266374.50	RISK		
3,689	633214.44	4266474.50	RISK		
3,690	633214.44	4266574.50	RISK		
3,691	633214.44	4266674.50	RISK		
3,692	633214.44	4266774.50	RISK		
3,693	633214.44	4266874.50	RISK		
3,694	633214.44	4266974.50	RISK		
3,695	633214.44	4267074.50	RISK		
3,696	633214.44	4267174.50	RISK		
3,697	633214.44	4267274.50	RISK		
3,698	633214.44	4267374.50	RISK		
3,699	633214.44	4267474.50	RISK		
3,700	633214.44	4267574.50	RISK		
3,701	633214.44	4267674.50	RISK		
3,702	633214.44	4267774.50	RISK		
3,703	633214.44	4267874.50	RISK		
3,704	633214.44	4267974.50	RISK		
3,705	633214.44	4268074.50	RISK		
3,706	633214.44	4268174.50	RISK		
3,707	633214.44	4268274.50	RISK		
3,708	633214.44	4268374.50	RISK		
3,709	633214.44	4268474.50	RISK		
3,710	633214.44	4268574.50	RISK		
3,711	633214.44	4268674.50	RISK		
3,712	633214.44	4268774.50	RISK		
3,713	633214.44	4268874.50	RISK		
3,714	633214.44	4268974.50	RISK		
3,715	633214.44	4269074.50	RISK		
3,716	633214.44	4269174.50	RISK		
3,717	633214.44	4269274.50	RISK		
3,718	633214.44	4269374.50	RISK		
3,719	633214.44	4269474.50	RISK		

# Receptor Pathway

AERMOD

3,720	633214.44	4269574.50	RISK	Option not Selected	Option not Selected
3,721	633214.44	4269674.50	RISK		
3,722	627214.44	4270174.50	RISK		
3,723	627214.44	4270674.50	RISK		
3,724	627214.44	4271174.50	RISK		
3,725	627214.44	4271674.50	RISK		
3,726	627214.44	4272174.50	RISK		
3,727	627214.44	4272674.50	RISK		
3,728	627214.44	4273174.50	RISK		
3,729	627214.44	4273674.50	RISK		
3,730	627214.44	4274174.50	RISK		
3,731	627214.44	4274674.50	RISK		
3,732	627214.44	4275174.50	RISK		
3,733	627214.44	4275674.50	RISK		
3,734	627214.44	4276174.50	RISK		
3,735	627214.44	4276674.50	RISK		
3,736	627714.44	4270174.50	RISK		
3,737	627714.44	4270674.50	RISK		
3,738	627714.44	4271174.50	RISK		
3,739	627714.44	4271674.50	RISK		
3,740	627714.44	4272174.50	RISK		
3,741	627714.44	4272674.50	RISK		
3,742	627714.44	4273174.50	RISK		
3,743	627714.44	4273674.50	RISK		
3,744	627714.44	4274174.50	RISK		
3,745	627714.44	4274674.50	RISK		
3,746	627714.44	4275174.50	RISK		
3,747	627714.44	4275674.50	RISK		
3,748	627714.44	4276174.50	RISK		
3,749	627714.44	4276674.50	RISK		
3,750	628214.44	4270174.50	RISK		
3,751	628214.44	4270674.50	RISK		
3,752	628214.44	4271174.50	RISK		
3,753	628214.44	4271674.50	RISK		
3,754	628214.44	4272174.50	RISK		
3,755	628214.44	4272674.50	RISK		
3,756	628214.44	4273174.50	RISK		
3,757	628214.44	4273674.50	RISK		
3,758	628214.44	4274174.50	RISK		
3,759	628214.44	4274674.50	RISK		
3,760	628214.44	4275174.50	RISK		

# Receptor Pathway

AERMOD

3,761	628214.44	4275674.50	RISK	Option not Selected	Option not Selected
3,762	628214.44	4276174.50	RISK		
3,763	628214.44	4276674.50	RISK		
3,764	628714.44	4270174.50	RISK		
3,765	628714.44	4270674.50	RISK		
3,766	628714.44	4271174.50	RISK		
3,767	628714.44	4271674.50	RISK		
3,768	628714.44	4272174.50	RISK		
3,769	628714.44	4272674.50	RISK		
3,770	628714.44	4273174.50	RISK		
3,771	628714.44	4273674.50	RISK		
3,772	628714.44	4274174.50	RISK		
3,773	628714.44	4274674.50	RISK		
3,774	628714.44	4275174.50	RISK		
3,775	628714.44	4275674.50	RISK		
3,776	628714.44	4276174.50	RISK		
3,777	628714.44	4276674.50	RISK		
3,778	629214.44	4270174.50	RISK		
3,779	629214.44	4270674.50	RISK		
3,780	629214.44	4271174.50	RISK		
3,781	629214.44	4271674.50	RISK		
3,782	629214.44	4272174.50	RISK		
3,783	629214.44	4272674.50	RISK		
3,784	629214.44	4273174.50	RISK		
3,785	629214.44	4273674.50	RISK		
3,786	629214.44	4274174.50	RISK		
3,787	629214.44	4274674.50	RISK		
3,788	629214.44	4275174.50	RISK		
3,789	629214.44	4275674.50	RISK		
3,790	629214.44	4276174.50	RISK		
3,791	629214.44	4276674.50	RISK		
3,792	629714.44	4270174.50	RISK		
3,793	629714.44	4270674.50	RISK		
3,794	629714.44	4271174.50	RISK		
3,795	629714.44	4271674.50	RISK		
3,796	629714.44	4272174.50	RISK		
3,797	629714.44	4272674.50	RISK		
3,798	629714.44	4273174.50	RISK		
3,799	629714.44	4273674.50	RISK		
3,800	629714.44	4274174.50	RISK		
3,801	629714.44	4274674.50	RISK		

# Receptor Pathway

AERMOD

3,802	629714.44	4275174.50	RISK	Option not Selected	Option not Selected
3,803	629714.44	4275674.50	RISK		
3,804	629714.44	4276174.50	RISK		
3,805	629714.44	4276674.50	RISK		
3,806	630214.44	4270174.50	RISK		
3,807	630214.44	4270674.50	RISK		
3,808	630214.44	4271174.50	RISK		
3,809	630214.44	4271674.50	RISK		
3,810	630214.44	4272174.50	RISK		
3,811	630214.44	4272674.50	RISK		
3,812	630214.44	4273174.50	RISK		
3,813	630214.44	4273674.50	RISK		
3,814	630214.44	4274174.50	RISK		
3,815	630214.44	4274674.50	RISK		
3,816	630214.44	4275174.50	RISK		
3,817	630214.44	4275674.50	RISK		
3,818	630214.44	4276174.50	RISK		
3,819	630214.44	4276674.50	RISK		
3,820	630714.44	4270174.50	RISK		
3,821	630714.44	4270674.50	RISK		
3,822	630714.44	4271174.50	RISK		
3,823	630714.44	4271674.50	RISK		
3,824	630714.44	4272174.50	RISK		
3,825	630714.44	4272674.50	RISK		
3,826	630714.44	4273174.50	RISK		
3,827	630714.44	4273674.50	RISK		
3,828	630714.44	4274174.50	RISK		
3,829	630714.44	4274674.50	RISK		
3,830	630714.44	4275174.50	RISK		
3,831	630714.44	4275674.50	RISK		
3,832	630714.44	4276174.50	RISK		
3,833	630714.44	4276674.50	RISK		
3,834	631214.44	4270174.50	RISK		
3,835	631214.44	4270674.50	RISK		
3,836	631214.44	4271174.50	RISK		
3,837	631214.44	4271674.50	RISK		
3,838	631214.44	4272174.50	RISK		
3,839	631214.44	4272674.50	RISK		
3,840	631214.44	4273174.50	RISK		
3,841	631214.44	4273674.50	RISK		
3,842	631214.44	4274174.50	RISK		

# Receptor Pathway

AERMOD

3,843	631214.44	4274674.50	RISK	Option not Selected	Option not Selected
3,844	631214.44	4275174.50	RISK		
3,845	631214.44	4275674.50	RISK		
3,846	631214.44	4276174.50	RISK		
3,847	631214.44	4276674.50	RISK		
3,848	631714.44	4270174.50	RISK		
3,849	631714.44	4270674.50	RISK		
3,850	631714.44	4271174.50	RISK		
3,851	631714.44	4271674.50	RISK		
3,852	631714.44	4272174.50	RISK		
3,853	631714.44	4272674.50	RISK		
3,854	631714.44	4273174.50	RISK		
3,855	631714.44	4273674.50	RISK		
3,856	631714.44	4274174.50	RISK		
3,857	631714.44	4274674.50	RISK		
3,858	631714.44	4275174.50	RISK		
3,859	631714.44	4275674.50	RISK		
3,860	631714.44	4276174.50	RISK		
3,861	631714.44	4276674.50	RISK		
3,862	632214.44	4270174.50	RISK		
3,863	632214.44	4270674.50	RISK		
3,864	632214.44	4271174.50	RISK		
3,865	632214.44	4271674.50	RISK		
3,866	632214.44	4272174.50	RISK		
3,867	632214.44	4272674.50	RISK		
3,868	632214.44	4273174.50	RISK		
3,869	632214.44	4273674.50	RISK		
3,870	632214.44	4274174.50	RISK		
3,871	632214.44	4274674.50	RISK		
3,872	632214.44	4275174.50	RISK		
3,873	632214.44	4275674.50	RISK		
3,874	632214.44	4276174.50	RISK		
3,875	632214.44	4276674.50	RISK		
3,876	632714.44	4270174.50	RISK		
3,877	632714.44	4270674.50	RISK		
3,878	632714.44	4271174.50	RISK		
3,879	632714.44	4271674.50	RISK		
3,880	632714.44	4272174.50	RISK		
3,881	632714.44	4272674.50	RISK		
3,882	632714.44	4273174.50	RISK		
3,883	632714.44	4273674.50	RISK		

# Receptor Pathway

AERMOD

3,884	632714.44	4274174.50	RISK	Option not Selected	Option not Selected
3,885	632714.44	4274674.50	RISK		
3,886	632714.44	4275174.50	RISK		
3,887	632714.44	4275674.50	RISK		
3,888	632714.44	4276174.50	RISK		
3,889	632714.44	4276674.50	RISK		
3,890	633214.44	4270174.50	RISK		
3,891	633214.44	4270674.50	RISK		
3,892	633214.44	4271174.50	RISK		
3,893	633214.44	4271674.50	RISK		
3,894	633214.44	4272174.50	RISK		
3,895	633214.44	4272674.50	RISK		
3,896	633214.44	4273174.50	RISK		
3,897	633214.44	4273674.50	RISK		
3,898	633214.44	4274174.50	RISK		
3,899	633214.44	4274674.50	RISK		
3,900	633214.44	4275174.50	RISK		
3,901	633214.44	4275674.50	RISK		
3,902	633214.44	4276174.50	RISK		
3,903	633214.44	4276674.50	RISK		
3,904	633714.44	4270174.50	RISK		
3,905	633714.44	4270674.50	RISK		
3,906	633714.44	4271174.50	RISK		
3,907	633714.44	4271674.50	RISK		
3,908	633714.44	4272174.50	RISK		
3,909	633714.44	4272674.50	RISK		
3,910	633714.44	4273174.50	RISK		
3,911	633714.44	4273674.50	RISK		
3,912	633714.44	4274174.50	RISK		
3,913	633714.44	4274674.50	RISK		
3,914	633714.44	4275174.50	RISK		
3,915	633714.44	4275674.50	RISK		
3,916	633714.44	4276174.50	RISK		
3,917	633714.44	4276674.50	RISK		
3,918	634214.44	4270174.50	RISK		
3,919	634214.44	4270674.50	RISK		
3,920	634214.44	4271174.50	RISK		
3,921	634214.44	4271674.50	RISK		
3,922	634214.44	4272174.50	RISK		
3,923	634214.44	4272674.50	RISK		
3,924	634214.44	4273174.50	RISK		

# Receptor Pathway

AERMOD

3,925	634214.44	4273674.50	RISK	Option not Selected	Option not Selected
3,926	634214.44	4274174.50	RISK		
3,927	634214.44	4274674.50	RISK		
3,928	634214.44	4275174.50	RISK		
3,929	634214.44	4275674.50	RISK		
3,930	634214.44	4276174.50	RISK		
3,931	634214.44	4276674.50	RISK		
3,932	634714.44	4270174.50	RISK		
3,933	634714.44	4270674.50	RISK		
3,934	634714.44	4271174.50	RISK		
3,935	634714.44	4271674.50	RISK		
3,936	634714.44	4272174.50	RISK		
3,937	634714.44	4272674.50	RISK		
3,938	634714.44	4273174.50	RISK		
3,939	634714.44	4273674.50	RISK		
3,940	634714.44	4274174.50	RISK		
3,941	634714.44	4274674.50	RISK		
3,942	634714.44	4275174.50	RISK		
3,943	634714.44	4275674.50	RISK		
3,944	634714.44	4276174.50	RISK		
3,945	634714.44	4276674.50	RISK		
3,946	635214.44	4270174.50	RISK		
3,947	635214.44	4270674.50	RISK		
3,948	635214.44	4271174.50	RISK		
3,949	635214.44	4271674.50	RISK		
3,950	635214.44	4272174.50	RISK		
3,951	635214.44	4272674.50	RISK		
3,952	635214.44	4273174.50	RISK		
3,953	635214.44	4273674.50	RISK		
3,954	635214.44	4274174.50	RISK		
3,955	635214.44	4274674.50	RISK		
3,956	635214.44	4275174.50	RISK		
3,957	635214.44	4275674.50	RISK		
3,958	635214.44	4276174.50	RISK		
3,959	635214.44	4276674.50	RISK		
3,960	635714.44	4270174.50	RISK		
3,961	635714.44	4270674.50	RISK		
3,962	635714.44	4271174.50	RISK		
3,963	635714.44	4271674.50	RISK		
3,964	635714.44	4272174.50	RISK		
3,965	635714.44	4272674.50	RISK		

# Receptor Pathway

AERMOD

3,966	635714.44	4273174.50	RISK	Option not Selected	Option not Selected
3,967	635714.44	4273674.50	RISK		
3,968	635714.44	4274174.50	RISK		
3,969	635714.44	4274674.50	RISK		
3,970	635714.44	4275174.50	RISK		
3,971	635714.44	4275674.50	RISK		
3,972	635714.44	4276174.50	RISK		
3,973	635714.44	4276674.50	RISK		
3,974	636214.44	4270174.50	RISK		
3,975	636214.44	4270674.50	RISK		
3,976	636214.44	4271174.50	RISK		
3,977	636214.44	4271674.50	RISK		
3,978	636214.44	4272174.50	RISK		
3,979	636214.44	4272674.50	RISK		
3,980	636214.44	4273174.50	RISK		
3,981	636214.44	4273674.50	RISK		
3,982	636214.44	4274174.50	RISK		
3,983	636214.44	4274674.50	RISK		
3,984	636214.44	4275174.50	RISK		
3,985	636214.44	4275674.50	RISK		
3,986	636214.44	4276174.50	RISK		
3,987	636214.44	4276674.50	RISK		
3,988	636714.44	4270174.50	RISK		
3,989	636714.44	4270674.50	RISK		
3,990	636714.44	4271174.50	RISK		
3,991	636714.44	4271674.50	RISK		
3,992	636714.44	4272174.50	RISK		
3,993	636714.44	4272674.50	RISK		
3,994	636714.44	4273174.50	RISK		
3,995	636714.44	4273674.50	RISK		
3,996	636714.44	4274174.50	RISK		
3,997	636714.44	4274674.50	RISK		
3,998	636714.44	4275174.50	RISK		
3,999	636714.44	4275674.50	RISK		
4,000	636714.44	4276174.50	RISK		
4,001	636714.44	4276674.50	RISK		
4,002	637214.44	4270174.50	RISK		
4,003	637214.44	4270674.50	RISK		
4,004	637214.44	4271174.50	RISK		
4,005	637214.44	4271674.50	RISK		
4,006	637214.44	4272174.50	RISK		

# Receptor Pathway

AERMOD

4,007	637214.44	4272674.50	RISK	Option not Selected	Option not Selected
4,008	637214.44	4273174.50	RISK		
4,009	637214.44	4273674.50	RISK		
4,010	637214.44	4274174.50	RISK		
4,011	637214.44	4274674.50	RISK		
4,012	637214.44	4275174.50	RISK		
4,013	637214.44	4275674.50	RISK		
4,014	637214.44	4276174.50	RISK		
4,015	637214.44	4276674.50	RISK		
4,016	637714.44	4270174.50	RISK		
4,017	637714.44	4270674.50	RISK		
4,018	637714.44	4271174.50	RISK		
4,019	637714.44	4271674.50	RISK		
4,020	637714.44	4272174.50	RISK		
4,021	637714.44	4272674.50	RISK		
4,022	637714.44	4273174.50	RISK		
4,023	637714.44	4273674.50	RISK		
4,024	637714.44	4274174.50	RISK		
4,025	637714.44	4274674.50	RISK		
4,026	637714.44	4275174.50	RISK		
4,027	637714.44	4275674.50	RISK		
4,028	637714.44	4276174.50	RISK		
4,029	637714.44	4276674.50	RISK		
4,030	638214.44	4270174.50	RISK		
4,031	638214.44	4270674.50	RISK		
4,032	638214.44	4271174.50	RISK		
4,033	638214.44	4271674.50	RISK		
4,034	638214.44	4272174.50	RISK		
4,035	638214.44	4272674.50	RISK		
4,036	638214.44	4273174.50	RISK		
4,037	638214.44	4273674.50	RISK		
4,038	638214.44	4274174.50	RISK		
4,039	638214.44	4274674.50	RISK		
4,040	638214.44	4275174.50	RISK		
4,041	638214.44	4275674.50	RISK		
4,042	638214.44	4276174.50	RISK		
4,043	638214.44	4276674.50	RISK		
4,044	638714.44	4270174.50	RISK		
4,045	638714.44	4270674.50	RISK		
4,046	638714.44	4271174.50	RISK		
4,047	638714.44	4271674.50	RISK		

# Receptor Pathway

AERMOD

4,048	638714.44	4272174.50	RISK	Option not Selected	Option not Selected
4,049	638714.44	4272674.50	RISK		
4,050	638714.44	4273174.50	RISK		
4,051	638714.44	4273674.50	RISK		
4,052	638714.44	4274174.50	RISK		
4,053	638714.44	4274674.50	RISK		
4,054	638714.44	4275174.50	RISK		
4,055	638714.44	4275674.50	RISK		
4,056	638714.44	4276174.50	RISK		
4,057	638714.44	4276674.50	RISK		
4,058	639214.44	4270174.50	RISK		
4,059	639214.44	4270674.50	RISK		
4,060	639214.44	4271174.50	RISK		
4,061	639214.44	4271674.50	RISK		
4,062	639214.44	4272174.50	RISK		
4,063	639214.44	4272674.50	RISK		
4,064	639214.44	4273174.50	RISK		
4,065	639214.44	4273674.50	RISK		
4,066	639214.44	4274174.50	RISK		
4,067	639214.44	4274674.50	RISK		
4,068	639214.44	4275174.50	RISK		
4,069	639214.44	4275674.50	RISK		
4,070	639214.44	4276174.50	RISK		
4,071	639214.44	4276674.50	RISK		
4,072	639714.44	4270174.50	RISK		
4,073	639714.44	4270674.50	RISK		
4,074	639714.44	4271174.50	RISK		
4,075	639714.44	4271674.50	RISK		
4,076	639714.44	4272174.50	RISK		
4,077	639714.44	4272674.50	RISK		
4,078	639714.44	4273174.50	RISK		
4,079	639714.44	4273674.50	RISK		
4,080	639714.44	4274174.50	RISK		
4,081	639714.44	4274674.50	RISK		
4,082	639714.44	4275174.50	RISK		
4,083	639714.44	4275674.50	RISK		
4,084	639714.44	4276174.50	RISK		
4,085	639714.44	4276674.50	RISK		
4,086	640214.44	4270174.50	RISK		
4,087	640214.44	4270674.50	RISK		
4,088	640214.44	4271174.50	RISK		

# Receptor Pathway

AERMOD

4,089	640214.44	4271674.50	RISK	Option not Selected	Option not Selected
4,090	640214.44	4272174.50	RISK		
4,091	640214.44	4272674.50	RISK		
4,092	640214.44	4273174.50	RISK		
4,093	640214.44	4273674.50	RISK		
4,094	640214.44	4274174.50	RISK		
4,095	640214.44	4274674.50	RISK		
4,096	640214.44	4275174.50	RISK		
4,097	640214.44	4275674.50	RISK		
4,098	640214.44	4276174.50	RISK		
4,099	640214.44	4276674.50	RISK		
4,100	633714.44	4269674.50	RISK		
4,101	633714.44	4269174.50	RISK		
4,102	633714.44	4268674.50	RISK		
4,103	633714.44	4268174.50	RISK		
4,104	633714.44	4267674.50	RISK		
4,105	633714.44	4267174.50	RISK		
4,106	633714.44	4266674.50	RISK		
4,107	633714.44	4266174.50	RISK		
4,108	633714.44	4265674.50	RISK		
4,109	633714.44	4265174.50	RISK		
4,110	633714.44	4264674.50	RISK		
4,111	633714.44	4264174.50	RISK		
4,112	633714.44	4263674.50	RISK		
4,113	633714.44	4263174.50	RISK		
4,114	633714.44	4262674.50	RISK		
4,115	633714.44	4262174.50	RISK		
4,116	633714.44	4261674.50	RISK		
4,117	633714.44	4261174.50	RISK		
4,118	633714.44	4260674.50	RISK		
4,119	633714.44	4260174.50	RISK		
4,120	633714.44	4259674.50	RISK		
4,121	633714.44	4259174.50	RISK		
4,122	633714.44	4258674.50	RISK		
4,123	633714.44	4258174.50	RISK		
4,124	633714.44	4257674.50	RISK		
4,125	633714.44	4257174.50	RISK		
4,126	633714.44	4256674.50	RISK		
4,127	634214.44	4269674.50	RISK		
4,128	634214.44	4269174.50	RISK		
4,129	634214.44	4268674.50	RISK		

# Receptor Pathway

AERMOD

4,130	634214.44	4268174.50	RISK	Option not Selected	Option not Selected
4,131	634214.44	4267674.50	RISK		
4,132	634214.44	4267174.50	RISK		
4,133	634214.44	4266674.50	RISK		
4,134	634214.44	4266174.50	RISK		
4,135	634214.44	4265674.50	RISK		
4,136	634214.44	4265174.50	RISK		
4,137	634214.44	4264674.50	RISK		
4,138	634214.44	4264174.50	RISK		
4,139	634214.44	4263674.50	RISK		
4,140	634214.44	4263174.50	RISK		
4,141	634214.44	4262674.50	RISK		
4,142	634214.44	4262174.50	RISK		
4,143	634214.44	4261674.50	RISK		
4,144	634214.44	4261174.50	RISK		
4,145	634214.44	4260674.50	RISK		
4,146	634214.44	4260174.50	RISK		
4,147	634214.44	4259674.50	RISK		
4,148	634214.44	4259174.50	RISK		
4,149	634214.44	4258674.50	RISK		
4,150	634214.44	4258174.50	RISK		
4,151	634214.44	4257674.50	RISK		
4,152	634214.44	4257174.50	RISK		
4,153	634214.44	4256674.50	RISK		
4,154	634714.44	4269674.50	RISK		
4,155	634714.44	4269174.50	RISK		
4,156	634714.44	4268674.50	RISK		
4,157	634714.44	4268174.50	RISK		
4,158	634714.44	4267674.50	RISK		
4,159	634714.44	4267174.50	RISK		
4,160	634714.44	4266674.50	RISK		
4,161	634714.44	4266174.50	RISK		
4,162	634714.44	4265674.50	RISK		
4,163	634714.44	4265174.50	RISK		
4,164	634714.44	4264674.50	RISK		
4,165	634714.44	4264174.50	RISK		
4,166	634714.44	4263674.50	RISK		
4,167	634714.44	4263174.50	RISK		
4,168	634714.44	4262674.50	RISK		
4,169	634714.44	4262174.50	RISK		
4,170	634714.44	4261674.50	RISK		

# Receptor Pathway

AERMOD

4,171	634714.44	4261174.50	RISK	Option not Selected	Option not Selected
4,172	634714.44	4260674.50	RISK		
4,173	634714.44	4260174.50	RISK		
4,174	634714.44	4259674.50	RISK		
4,175	634714.44	4259174.50	RISK		
4,176	634714.44	4258674.50	RISK		
4,177	634714.44	4258174.50	RISK		
4,178	634714.44	4257674.50	RISK		
4,179	634714.44	4257174.50	RISK		
4,180	634714.44	4256674.50	RISK		
4,181	635214.44	4269674.50	RISK		
4,182	635214.44	4269174.50	RISK		
4,183	635214.44	4268674.50	RISK		
4,184	635214.44	4268174.50	RISK		
4,185	635214.44	4267674.50	RISK		
4,186	635214.44	4267174.50	RISK		
4,187	635214.44	4266674.50	RISK		
4,188	635214.44	4266174.50	RISK		
4,189	635214.44	4265674.50	RISK		
4,190	635214.44	4265174.50	RISK		
4,191	635214.44	4264674.50	RISK		
4,192	635214.44	4264174.50	RISK		
4,193	635214.44	4263674.50	RISK		
4,194	635214.44	4263174.50	RISK		
4,195	635214.44	4262674.50	RISK		
4,196	635214.44	4262174.50	RISK		
4,197	635214.44	4261674.50	RISK		
4,198	635214.44	4261174.50	RISK		
4,199	635214.44	4260674.50	RISK		
4,200	635214.44	4260174.50	RISK		
4,201	635214.44	4259674.50	RISK		
4,202	635214.44	4259174.50	RISK		
4,203	635214.44	4258674.50	RISK		
4,204	635214.44	4258174.50	RISK		
4,205	635214.44	4257674.50	RISK		
4,206	635214.44	4257174.50	RISK		
4,207	635214.44	4256674.50	RISK		
4,208	635714.44	4269674.50	RISK		
4,209	635714.44	4269174.50	RISK		
4,210	635714.44	4268674.50	RISK		
4,211	635714.44	4268174.50	RISK		

# Receptor Pathway

AERMOD

4,212	635714.44	4267674.50	RISK	Option not Selected	Option not Selected
4,213	635714.44	4267174.50	RISK		
4,214	635714.44	4266674.50	RISK		
4,215	635714.44	4266174.50	RISK		
4,216	635714.44	4265674.50	RISK		
4,217	635714.44	4265174.50	RISK		
4,218	635714.44	4264674.50	RISK		
4,219	635714.44	4264174.50	RISK		
4,220	635714.44	4263674.50	RISK		
4,221	635714.44	4263174.50	RISK		
4,222	635714.44	4262674.50	RISK		
4,223	635714.44	4262174.50	RISK		
4,224	635714.44	4261674.50	RISK		
4,225	635714.44	4261174.50	RISK		
4,226	635714.44	4260674.50	RISK		
4,227	635714.44	4260174.50	RISK		
4,228	635714.44	4259674.50	RISK		
4,229	635714.44	4259174.50	RISK		
4,230	635714.44	4258674.50	RISK		
4,231	635714.44	4258174.50	RISK		
4,232	635714.44	4257674.50	RISK		
4,233	635714.44	4257174.50	RISK		
4,234	635714.44	4256674.50	RISK		
4,235	636214.44	4269674.50	RISK		
4,236	636214.44	4269174.50	RISK		
4,237	636214.44	4268674.50	RISK		
4,238	636214.44	4268174.50	RISK		
4,239	636214.44	4267674.50	RISK		
4,240	636214.44	4267174.50	RISK		
4,241	636214.44	4266674.50	RISK		
4,242	636214.44	4266174.50	RISK		
4,243	636214.44	4265674.50	RISK		
4,244	636214.44	4265174.50	RISK		
4,245	636214.44	4264674.50	RISK		
4,246	636214.44	4264174.50	RISK		
4,247	636214.44	4263674.50	RISK		
4,248	636214.44	4263174.50	RISK		
4,249	636214.44	4262674.50	RISK		
4,250	636214.44	4262174.50	RISK		
4,251	636214.44	4261674.50	RISK		
4,252	636214.44	4261174.50	RISK		

# Receptor Pathway

AERMOD

4,253	636214.44	4260674.50	RISK	Option not Selected	Option not Selected
4,254	636214.44	4260174.50	RISK		
4,255	636214.44	4259674.50	RISK		
4,256	636214.44	4259174.50	RISK		
4,257	636214.44	4258674.50	RISK		
4,258	636214.44	4258174.50	RISK		
4,259	636214.44	4257674.50	RISK		
4,260	636214.44	4257174.50	RISK		
4,261	636214.44	4256674.50	RISK		
4,262	636714.44	4269674.50	RISK		
4,263	636714.44	4269174.50	RISK		
4,264	636714.44	4268674.50	RISK		
4,265	636714.44	4268174.50	RISK		
4,266	636714.44	4267674.50	RISK		
4,267	636714.44	4267174.50	RISK		
4,268	636714.44	4266674.50	RISK		
4,269	636714.44	4266174.50	RISK		
4,270	636714.44	4265674.50	RISK		
4,271	636714.44	4265174.50	RISK		
4,272	636714.44	4264674.50	RISK		
4,273	636714.44	4264174.50	RISK		
4,274	636714.44	4263674.50	RISK		
4,275	636714.44	4263174.50	RISK		
4,276	636714.44	4262674.50	RISK		
4,277	636714.44	4262174.50	RISK		
4,278	636714.44	4261674.50	RISK		
4,279	636714.44	4261174.50	RISK		
4,280	636714.44	4260674.50	RISK		
4,281	636714.44	4260174.50	RISK		
4,282	636714.44	4259674.50	RISK		
4,283	636714.44	4259174.50	RISK		
4,284	636714.44	4258674.50	RISK		
4,285	636714.44	4258174.50	RISK		
4,286	636714.44	4257674.50	RISK		
4,287	636714.44	4257174.50	RISK		
4,288	636714.44	4256674.50	RISK		
4,289	637214.44	4269674.50	RISK		
4,290	637214.44	4269174.50	RISK		
4,291	637214.44	4268674.50	RISK		
4,292	637214.44	4268174.50	RISK		
4,293	637214.44	4267674.50	RISK		

# Receptor Pathway

AERMOD

4,294	637214.44	4267174.50	RISK	Option not Selected	Option not Selected
4,295	637214.44	4266674.50	RISK		
4,296	637214.44	4266174.50	RISK		
4,297	637214.44	4265674.50	RISK		
4,298	637214.44	4265174.50	RISK		
4,299	637214.44	4264674.50	RISK		
4,300	637214.44	4264174.50	RISK		
4,301	637214.44	4263674.50	RISK		
4,302	637214.44	4263174.50	RISK		
4,303	637214.44	4262674.50	RISK		
4,304	637214.44	4262174.50	RISK		
4,305	637214.44	4261674.50	RISK		
4,306	637214.44	4261174.50	RISK		
4,307	637214.44	4260674.50	RISK		
4,308	637214.44	4260174.50	RISK		
4,309	637214.44	4259674.50	RISK		
4,310	637214.44	4259174.50	RISK		
4,311	637214.44	4258674.50	RISK		
4,312	637214.44	4258174.50	RISK		
4,313	637214.44	4257674.50	RISK		
4,314	637214.44	4257174.50	RISK		
4,315	637214.44	4256674.50	RISK		
4,316	637714.44	4269674.50	RISK		
4,317	637714.44	4269174.50	RISK		
4,318	637714.44	4268674.50	RISK		
4,319	637714.44	4268174.50	RISK		
4,320	637714.44	4267674.50	RISK		
4,321	637714.44	4267174.50	RISK		
4,322	637714.44	4266674.50	RISK		
4,323	637714.44	4266174.50	RISK		
4,324	637714.44	4265674.50	RISK		
4,325	637714.44	4265174.50	RISK		
4,326	637714.44	4264674.50	RISK		
4,327	637714.44	4264174.50	RISK		
4,328	637714.44	4263674.50	RISK		
4,329	637714.44	4263174.50	RISK		
4,330	637714.44	4262674.50	RISK		
4,331	637714.44	4262174.50	RISK		
4,332	637714.44	4261674.50	RISK		
4,333	637714.44	4261174.50	RISK		
4,334	637714.44	4260674.50	RISK		

# Receptor Pathway

AERMOD

4,335	637714.44	4260174.50	RISK	Option not Selected	Option not Selected
4,336	637714.44	4259674.50	RISK		
4,337	637714.44	4259174.50	RISK		
4,338	637714.44	4258674.50	RISK		
4,339	637714.44	4258174.50	RISK		
4,340	637714.44	4257674.50	RISK		
4,341	637714.44	4257174.50	RISK		
4,342	637714.44	4256674.50	RISK		
4,343	638214.44	4269674.50	RISK		
4,344	638214.44	4269174.50	RISK		
4,345	638214.44	4268674.50	RISK		
4,346	638214.44	4268174.50	RISK		
4,347	638214.44	4267674.50	RISK		
4,348	638214.44	4267174.50	RISK		
4,349	638214.44	4266674.50	RISK		
4,350	638214.44	4266174.50	RISK		
4,351	638214.44	4265674.50	RISK		
4,352	638214.44	4265174.50	RISK		
4,353	638214.44	4264674.50	RISK		
4,354	638214.44	4264174.50	RISK		
4,355	638214.44	4263674.50	RISK		
4,356	638214.44	4263174.50	RISK		
4,357	638214.44	4262674.50	RISK		
4,358	638214.44	4262174.50	RISK		
4,359	638214.44	4261674.50	RISK		
4,360	638214.44	4261174.50	RISK		
4,361	638214.44	4260674.50	RISK		
4,362	638214.44	4260174.50	RISK		
4,363	638214.44	4259674.50	RISK		
4,364	638214.44	4259174.50	RISK		
4,365	638214.44	4258674.50	RISK		
4,366	638214.44	4258174.50	RISK		
4,367	638214.44	4257674.50	RISK		
4,368	638214.44	4257174.50	RISK		
4,369	638214.44	4256674.50	RISK		
4,370	638714.44	4269674.50	RISK		
4,371	638714.44	4269174.50	RISK		
4,372	638714.44	4268674.50	RISK		
4,373	638714.44	4268174.50	RISK		
4,374	638714.44	4267674.50	RISK		
4,375	638714.44	4267174.50	RISK		

# Receptor Pathway

AERMOD

4,376	638714.44	4266674.50	RISK	Option not Selected	Option not Selected
4,377	638714.44	4266174.50	RISK		
4,378	638714.44	4265674.50	RISK		
4,379	638714.44	4265174.50	RISK		
4,380	638714.44	4264674.50	RISK		
4,381	638714.44	4264174.50	RISK		
4,382	638714.44	4263674.50	RISK		
4,383	638714.44	4263174.50	RISK		
4,384	638714.44	4262674.50	RISK		
4,385	638714.44	4262174.50	RISK		
4,386	638714.44	4261674.50	RISK		
4,387	638714.44	4261174.50	RISK		
4,388	638714.44	4260674.50	RISK		
4,389	638714.44	4260174.50	RISK		
4,390	638714.44	4259674.50	RISK		
4,391	638714.44	4259174.50	RISK		
4,392	638714.44	4258674.50	RISK		
4,393	638714.44	4258174.50	RISK		
4,394	638714.44	4257674.50	RISK		
4,395	638714.44	4257174.50	RISK		
4,396	638714.44	4256674.50	RISK		
4,397	639214.44	4269674.50	RISK		
4,398	639214.44	4269174.50	RISK		
4,399	639214.44	4268674.50	RISK		
4,400	639214.44	4268174.50	RISK		
4,401	639214.44	4267674.50	RISK		
4,402	639214.44	4267174.50	RISK		
4,403	639214.44	4266674.50	RISK		
4,404	639214.44	4266174.50	RISK		
4,405	639214.44	4265674.50	RISK		
4,406	639214.44	4265174.50	RISK		
4,407	639214.44	4264674.50	RISK		
4,408	639214.44	4264174.50	RISK		
4,409	639214.44	4263674.50	RISK		
4,410	639214.44	4263174.50	RISK		
4,411	639214.44	4262674.50	RISK		
4,412	639214.44	4262174.50	RISK		
4,413	639214.44	4261674.50	RISK		
4,414	639214.44	4261174.50	RISK		
4,415	639214.44	4260674.50	RISK		
4,416	639214.44	4260174.50	RISK		

# Receptor Pathway

AERMOD

4,417	639214.44	4259674.50	RISK	Option not Selected	Option not Selected
4,418	639214.44	4259174.50	RISK		
4,419	639214.44	4258674.50	RISK		
4,420	639214.44	4258174.50	RISK		
4,421	639214.44	4257674.50	RISK		
4,422	639214.44	4257174.50	RISK		
4,423	639214.44	4256674.50	RISK		
4,424	639714.44	4269674.50	RISK		
4,425	639714.44	4269174.50	RISK		
4,426	639714.44	4268674.50	RISK		
4,427	639714.44	4268174.50	RISK		
4,428	639714.44	4267674.50	RISK		
4,429	639714.44	4267174.50	RISK		
4,430	639714.44	4266674.50	RISK		
4,431	639714.44	4266174.50	RISK		
4,432	639714.44	4265674.50	RISK		
4,433	639714.44	4265174.50	RISK		
4,434	639714.44	4264674.50	RISK		
4,435	639714.44	4264174.50	RISK		
4,436	639714.44	4263674.50	RISK		
4,437	639714.44	4263174.50	RISK		
4,438	639714.44	4262674.50	RISK		
4,439	639714.44	4262174.50	RISK		
4,440	639714.44	4261674.50	RISK		
4,441	639714.44	4261174.50	RISK		
4,442	639714.44	4260674.50	RISK		
4,443	639714.44	4260174.50	RISK		
4,444	639714.44	4259674.50	RISK		
4,445	639714.44	4259174.50	RISK		
4,446	639714.44	4258674.50	RISK		
4,447	639714.44	4258174.50	RISK		
4,448	639714.44	4257674.50	RISK		
4,449	639714.44	4257174.50	RISK		
4,450	639714.44	4256674.50	RISK		
4,451	640214.44	4269674.50	RISK		
4,452	640214.44	4269174.50	RISK		
4,453	640214.44	4268674.50	RISK		
4,454	640214.44	4268174.50	RISK		
4,455	640214.44	4267674.50	RISK		
4,456	640214.44	4267174.50	RISK		
4,457	640214.44	4266674.50	RISK		

# Receptor Pathway

AERMOD

4,458	640214.44	4266174.50	RISK	Option not Selected	Option not Selected
4,459	640214.44	4265674.50	RISK		
4,460	640214.44	4265174.50	RISK		
4,461	640214.44	4264674.50	RISK		
4,462	640214.44	4264174.50	RISK		
4,463	640214.44	4263674.50	RISK		
4,464	640214.44	4263174.50	RISK		
4,465	640214.44	4262674.50	RISK		
4,466	640214.44	4262174.50	RISK		
4,467	640214.44	4261674.50	RISK		
4,468	640214.44	4261174.50	RISK		
4,469	640214.44	4260674.50	RISK		
4,470	640214.44	4260174.50	RISK		
4,471	640214.44	4259674.50	RISK		
4,472	640214.44	4259174.50	RISK		
4,473	640214.44	4258674.50	RISK		
4,474	640214.44	4258174.50	RISK		
4,475	640214.44	4257674.50	RISK		
4,476	640214.44	4257174.50	RISK		
4,477	640214.44	4256674.50	RISK		
4,478	633214.44	4263174.50	RISK		
4,479	633214.44	4262674.50	RISK		
4,480	633214.44	4262174.50	RISK		
4,481	633214.44	4261674.50	RISK		
4,482	633214.44	4261174.50	RISK		
4,483	633214.44	4260674.50	RISK		
4,484	633214.44	4260174.50	RISK		
4,485	633214.44	4259674.50	RISK		
4,486	633214.44	4259174.50	RISK		
4,487	633214.44	4258674.50	RISK		
4,488	633214.44	4258174.50	RISK		
4,489	633214.44	4257674.50	RISK		
4,490	633214.44	4257174.50	RISK		
4,491	633214.44	4256674.50	RISK		
4,492	632714.44	4263174.50	RISK		
4,493	632714.44	4262674.50	RISK		
4,494	632714.44	4262174.50	RISK		
4,495	632714.44	4261674.50	RISK		
4,496	632714.44	4261174.50	RISK		
4,497	632714.44	4260674.50	RISK		
4,498	632714.44	4260174.50	RISK		

# Receptor Pathway

AERMOD

4,499	632714.44	4259674.50	RISK	Option not Selected	Option not Selected
4,500	632714.44	4259174.50	RISK		
4,501	632714.44	4258674.50	RISK		
4,502	632714.44	4258174.50	RISK		
4,503	632714.44	4257674.50	RISK		
4,504	632714.44	4257174.50	RISK		
4,505	632714.44	4256674.50	RISK		
4,506	632214.44	4263174.50	RISK		
4,507	632214.44	4262674.50	RISK		
4,508	632214.44	4262174.50	RISK		
4,509	632214.44	4261674.50	RISK		
4,510	632214.44	4261174.50	RISK		
4,511	632214.44	4260674.50	RISK		
4,512	632214.44	4260174.50	RISK		
4,513	632214.44	4259674.50	RISK		
4,514	632214.44	4259174.50	RISK		
4,515	632214.44	4258674.50	RISK		
4,516	632214.44	4258174.50	RISK		
4,517	632214.44	4257674.50	RISK		
4,518	632214.44	4257174.50	RISK		
4,519	632214.44	4256674.50	RISK		
4,520	631714.44	4263174.50	RISK		
4,521	631714.44	4262674.50	RISK		
4,522	631714.44	4262174.50	RISK		
4,523	631714.44	4261674.50	RISK		
4,524	631714.44	4261174.50	RISK		
4,525	631714.44	4260674.50	RISK		
4,526	631714.44	4260174.50	RISK		
4,527	631714.44	4259674.50	RISK		
4,528	631714.44	4259174.50	RISK		
4,529	631714.44	4258674.50	RISK		
4,530	631714.44	4258174.50	RISK		
4,531	631714.44	4257674.50	RISK		
4,532	631714.44	4257174.50	RISK		
4,533	631714.44	4256674.50	RISK		
4,534	631214.44	4263174.50	RISK		
4,535	631214.44	4262674.50	RISK		
4,536	631214.44	4262174.50	RISK		
4,537	631214.44	4261674.50	RISK		
4,538	631214.44	4261174.50	RISK		
4,539	631214.44	4260674.50	RISK		

# Receptor Pathway

AERMOD

4,540	631214.44	4260174.50	RISK	Option not Selected	Option not Selected
4,541	631214.44	4259674.50	RISK		
4,542	631214.44	4259174.50	RISK		
4,543	631214.44	4258674.50	RISK		
4,544	631214.44	4258174.50	RISK		
4,545	631214.44	4257674.50	RISK		
4,546	631214.44	4257174.50	RISK		
4,547	631214.44	4256674.50	RISK		
4,548	630714.44	4263174.50	RISK		
4,549	630714.44	4262674.50	RISK		
4,550	630714.44	4262174.50	RISK		
4,551	630714.44	4261674.50	RISK		
4,552	630714.44	4261174.50	RISK		
4,553	630714.44	4260674.50	RISK		
4,554	630714.44	4260174.50	RISK		
4,555	630714.44	4259674.50	RISK		
4,556	630714.44	4259174.50	RISK		
4,557	630714.44	4258674.50	RISK		
4,558	630714.44	4258174.50	RISK		
4,559	630714.44	4257674.50	RISK		
4,560	630714.44	4257174.50	RISK		
4,561	630714.44	4256674.50	RISK		
4,562	630214.44	4263174.50	RISK		
4,563	630214.44	4262674.50	RISK		
4,564	630214.44	4262174.50	RISK		
4,565	630214.44	4261674.50	RISK		
4,566	630214.44	4261174.50	RISK		
4,567	630214.44	4260674.50	RISK		
4,568	630214.44	4260174.50	RISK		
4,569	630214.44	4259674.50	RISK		
4,570	630214.44	4259174.50	RISK		
4,571	630214.44	4258674.50	RISK		
4,572	630214.44	4258174.50	RISK		
4,573	630214.44	4257674.50	RISK		
4,574	630214.44	4257174.50	RISK		
4,575	630214.44	4256674.50	RISK		
4,576	629714.44	4263174.50	RISK		
4,577	629714.44	4262674.50	RISK		
4,578	629714.44	4262174.50	RISK		
4,579	629714.44	4261674.50	RISK		
4,580	629714.44	4261174.50	RISK		

# Receptor Pathway

AERMOD

4,581	629714.44	4260674.50	RISK	Option not Selected	Option not Selected
4,582	629714.44	4260174.50	RISK		
4,583	629714.44	4259674.50	RISK		
4,584	629714.44	4259174.50	RISK		
4,585	629714.44	4258674.50	RISK		
4,586	629714.44	4258174.50	RISK		
4,587	629714.44	4257674.50	RISK		
4,588	629714.44	4257174.50	RISK		
4,589	629714.44	4256674.50	RISK		
4,590	629214.44	4263174.50	RISK		
4,591	629214.44	4262674.50	RISK		
4,592	629214.44	4262174.50	RISK		
4,593	629214.44	4261674.50	RISK		
4,594	629214.44	4261174.50	RISK		
4,595	629214.44	4260674.50	RISK		
4,596	629214.44	4260174.50	RISK		
4,597	629214.44	4259674.50	RISK		
4,598	629214.44	4259174.50	RISK		
4,599	629214.44	4258674.50	RISK		
4,600	629214.44	4258174.50	RISK		
4,601	629214.44	4257674.50	RISK		
4,602	629214.44	4257174.50	RISK		
4,603	629214.44	4256674.50	RISK		
4,604	628714.44	4263174.50	RISK		
4,605	628714.44	4262674.50	RISK		
4,606	628714.44	4262174.50	RISK		
4,607	628714.44	4261674.50	RISK		
4,608	628714.44	4261174.50	RISK		
4,609	628714.44	4260674.50	RISK		
4,610	628714.44	4260174.50	RISK		
4,611	628714.44	4259674.50	RISK		
4,612	628714.44	4259174.50	RISK		
4,613	628714.44	4258674.50	RISK		
4,614	628714.44	4258174.50	RISK		
4,615	628714.44	4257674.50	RISK		
4,616	628714.44	4257174.50	RISK		
4,617	628714.44	4256674.50	RISK		
4,618	628214.44	4263174.50	RISK		
4,619	628214.44	4262674.50	RISK		
4,620	628214.44	4262174.50	RISK		
4,621	628214.44	4261674.50	RISK		

# Receptor Pathway

AERMOD

4,622	628214.44	4261174.50	RISK	Option not Selected	Option not Selected
4,623	628214.44	4260674.50	RISK		
4,624	628214.44	4260174.50	RISK		
4,625	628214.44	4259674.50	RISK		
4,626	628214.44	4259174.50	RISK		
4,627	628214.44	4258674.50	RISK		
4,628	628214.44	4258174.50	RISK		
4,629	628214.44	4257674.50	RISK		
4,630	628214.44	4257174.50	RISK		
4,631	628214.44	4256674.50	RISK		
4,632	627714.44	4263174.50	RISK		
4,633	627714.44	4262674.50	RISK		
4,634	627714.44	4262174.50	RISK		
4,635	627714.44	4261674.50	RISK		
4,636	627714.44	4261174.50	RISK		
4,637	627714.44	4260674.50	RISK		
4,638	627714.44	4260174.50	RISK		
4,639	627714.44	4259674.50	RISK		
4,640	627714.44	4259174.50	RISK		
4,641	627714.44	4258674.50	RISK		
4,642	627714.44	4258174.50	RISK		
4,643	627714.44	4257674.50	RISK		
4,644	627714.44	4257174.50	RISK		
4,645	627714.44	4256674.50	RISK		
4,646	627214.44	4263174.50	RISK		
4,647	627214.44	4262674.50	RISK		
4,648	627214.44	4262174.50	RISK		
4,649	627214.44	4261674.50	RISK		
4,650	627214.44	4261174.50	RISK		
4,651	627214.44	4260674.50	RISK		
4,652	627214.44	4260174.50	RISK		
4,653	627214.44	4259674.50	RISK		
4,654	627214.44	4259174.50	RISK		
4,655	627214.44	4258674.50	RISK		
4,656	627214.44	4258174.50	RISK		
4,657	627214.44	4257674.50	RISK		
4,658	627214.44	4257174.50	RISK		
4,659	627214.44	4256674.50	RISK		
4,660	626714.44	4263174.50	RISK		
4,661	626714.44	4262674.50	RISK		
4,662	626714.44	4262174.50	RISK		

# Receptor Pathway

AERMOD

4,663	626714.44	4261674.50	RISK	Option not Selected	Option not Selected
4,664	626714.44	4261174.50	RISK		
4,665	626714.44	4260674.50	RISK		
4,666	626714.44	4260174.50	RISK		
4,667	626714.44	4259674.50	RISK		
4,668	626714.44	4259174.50	RISK		
4,669	626714.44	4258674.50	RISK		
4,670	626714.44	4258174.50	RISK		
4,671	626714.44	4257674.50	RISK		
4,672	626714.44	4257174.50	RISK		
4,673	626714.44	4256674.50	RISK		
4,674	626214.44	4263174.50	RISK		
4,675	626214.44	4262674.50	RISK		
4,676	626214.44	4262174.50	RISK		
4,677	626214.44	4261674.50	RISK		
4,678	626214.44	4261174.50	RISK		
4,679	626214.44	4260674.50	RISK		
4,680	626214.44	4260174.50	RISK		
4,681	626214.44	4259674.50	RISK		
4,682	626214.44	4259174.50	RISK		
4,683	626214.44	4258674.50	RISK		
4,684	626214.44	4258174.50	RISK		
4,685	626214.44	4257674.50	RISK		
4,686	626214.44	4257174.50	RISK		
4,687	626214.44	4256674.50	RISK		
4,688	625714.44	4263174.50	RISK		
4,689	625714.44	4262674.50	RISK		
4,690	625714.44	4262174.50	RISK		
4,691	625714.44	4261674.50	RISK		
4,692	625714.44	4261174.50	RISK		
4,693	625714.44	4260674.50	RISK		
4,694	625714.44	4260174.50	RISK		
4,695	625714.44	4259674.50	RISK		
4,696	625714.44	4259174.50	RISK		
4,697	625714.44	4258674.50	RISK		
4,698	625714.44	4258174.50	RISK		
4,699	625714.44	4257674.50	RISK		
4,700	625714.44	4257174.50	RISK		
4,701	625714.44	4256674.50	RISK		
4,702	625214.44	4263174.50	RISK		
4,703	625214.44	4262674.50	RISK		

# Receptor Pathway

AERMOD

4,704	625214.44	4262174.50	RISK	Option not Selected	Option not Selected
4,705	625214.44	4261674.50	RISK		
4,706	625214.44	4261174.50	RISK		
4,707	625214.44	4260674.50	RISK		
4,708	625214.44	4260174.50	RISK		
4,709	625214.44	4259674.50	RISK		
4,710	625214.44	4259174.50	RISK		
4,711	625214.44	4258674.50	RISK		
4,712	625214.44	4258174.50	RISK		
4,713	625214.44	4257674.50	RISK		
4,714	625214.44	4257174.50	RISK		
4,715	625214.44	4256674.50	RISK		
4,716	624714.44	4263174.50	RISK		
4,717	624714.44	4262674.50	RISK		
4,718	624714.44	4262174.50	RISK		
4,719	624714.44	4261674.50	RISK		
4,720	624714.44	4261174.50	RISK		
4,721	624714.44	4260674.50	RISK		
4,722	624714.44	4260174.50	RISK		
4,723	624714.44	4259674.50	RISK		
4,724	624714.44	4259174.50	RISK		
4,725	624714.44	4258674.50	RISK		
4,726	624714.44	4258174.50	RISK		
4,727	624714.44	4257674.50	RISK		
4,728	624714.44	4257174.50	RISK		
4,729	624714.44	4256674.50	RISK		
4,730	624214.44	4263174.50	RISK		
4,731	624214.44	4262674.50	RISK		
4,732	624214.44	4262174.50	RISK		
4,733	624214.44	4261674.50	RISK		
4,734	624214.44	4261174.50	RISK		
4,735	624214.44	4260674.50	RISK		
4,736	624214.44	4260174.50	RISK		
4,737	624214.44	4259674.50	RISK		
4,738	624214.44	4259174.50	RISK		
4,739	624214.44	4258674.50	RISK		
4,740	624214.44	4258174.50	RISK		
4,741	624214.44	4257674.50	RISK		
4,742	624214.44	4257174.50	RISK		
4,743	624214.44	4256674.50	RISK		
4,744	623714.44	4263174.50	RISK		

# Receptor Pathway

AERMOD

4,745	623714.44	4262674.50	RISK	Option not Selected	Option not Selected
4,746	623714.44	4262174.50	RISK		
4,747	623714.44	4261674.50	RISK		
4,748	623714.44	4261174.50	RISK		
4,749	623714.44	4260674.50	RISK		
4,750	623714.44	4260174.50	RISK		
4,751	623714.44	4259674.50	RISK		
4,752	623714.44	4259174.50	RISK		
4,753	623714.44	4258674.50	RISK		
4,754	623714.44	4258174.50	RISK		
4,755	623714.44	4257674.50	RISK		
4,756	623714.44	4257174.50	RISK		
4,757	623714.44	4256674.50	RISK		
4,758	623214.44	4263174.50	RISK		
4,759	623214.44	4262674.50	RISK		
4,760	623214.44	4262174.50	RISK		
4,761	623214.44	4261674.50	RISK		
4,762	623214.44	4261174.50	RISK		
4,763	623214.44	4260674.50	RISK		
4,764	623214.44	4260174.50	RISK		
4,765	623214.44	4259674.50	RISK		
4,766	623214.44	4259174.50	RISK		
4,767	623214.44	4258674.50	RISK		
4,768	623214.44	4258174.50	RISK		
4,769	623214.44	4257674.50	RISK		
4,770	623214.44	4257174.50	RISK		
4,771	623214.44	4256674.50	RISK		
4,772	622714.44	4263174.50	RISK		
4,773	622714.44	4262674.50	RISK		
4,774	622714.44	4262174.50	RISK		
4,775	622714.44	4261674.50	RISK		
4,776	622714.44	4261174.50	RISK		
4,777	622714.44	4260674.50	RISK		
4,778	622714.44	4260174.50	RISK		
4,779	622714.44	4259674.50	RISK		
4,780	622714.44	4259174.50	RISK		
4,781	622714.44	4258674.50	RISK		
4,782	622714.44	4258174.50	RISK		
4,783	622714.44	4257674.50	RISK		
4,784	622714.44	4257174.50	RISK		
4,785	622714.44	4256674.50	RISK		

# Receptor Pathway

AERMOD

4,786	622214.44	4263174.50	RISK	Option not Selected	Option not Selected
4,787	622214.44	4262674.50	RISK		
4,788	622214.44	4262174.50	RISK		
4,789	622214.44	4261674.50	RISK		
4,790	622214.44	4261174.50	RISK		
4,791	622214.44	4260674.50	RISK		
4,792	622214.44	4260174.50	RISK		
4,793	622214.44	4259674.50	RISK		
4,794	622214.44	4259174.50	RISK		
4,795	622214.44	4258674.50	RISK		
4,796	622214.44	4258174.50	RISK		
4,797	622214.44	4257674.50	RISK		
4,798	622214.44	4257174.50	RISK		
4,799	622214.44	4256674.50	RISK		
4,800	621714.44	4263174.50	RISK		
4,801	621714.44	4262674.50	RISK		
4,802	621714.44	4262174.50	RISK		
4,803	621714.44	4261674.50	RISK		
4,804	621714.44	4261174.50	RISK		
4,805	621714.44	4260674.50	RISK		
4,806	621714.44	4260174.50	RISK		
4,807	621714.44	4259674.50	RISK		
4,808	621714.44	4259174.50	RISK		
4,809	621714.44	4258674.50	RISK		
4,810	621714.44	4258174.50	RISK		
4,811	621714.44	4257674.50	RISK		
4,812	621714.44	4257174.50	RISK		
4,813	621714.44	4256674.50	RISK		
4,814	621214.44	4263174.50	RISK		
4,815	621214.44	4262674.50	RISK		
4,816	621214.44	4262174.50	RISK		
4,817	621214.44	4261674.50	RISK		
4,818	621214.44	4261174.50	RISK		
4,819	621214.44	4260674.50	RISK		
4,820	621214.44	4260174.50	RISK		
4,821	621214.44	4259674.50	RISK		
4,822	621214.44	4259174.50	RISK		
4,823	621214.44	4258674.50	RISK		
4,824	621214.44	4258174.50	RISK		
4,825	621214.44	4257674.50	RISK		
4,826	621214.44	4257174.50	RISK		

# Receptor Pathway

AERMOD

4,827	621214.44	4256674.50	RISK	Option not Selected	Option not Selected
4,828	620714.44	4263174.50	RISK		
4,829	620714.44	4262674.50	RISK		
4,830	620714.44	4262174.50	RISK		
4,831	620714.44	4261674.50	RISK		
4,832	620714.44	4261174.50	RISK		
4,833	620714.44	4260674.50	RISK		
4,834	620714.44	4260174.50	RISK		
4,835	620714.44	4259674.50	RISK		
4,836	620714.44	4259174.50	RISK		
4,837	620714.44	4258674.50	RISK		
4,838	620714.44	4258174.50	RISK		
4,839	620714.44	4257674.50	RISK		
4,840	620714.44	4257174.50	RISK		
4,841	620714.44	4256674.50	RISK		
4,842	620214.44	4263174.50	RISK		
4,843	620214.44	4262674.50	RISK		
4,844	620214.44	4262174.50	RISK		
4,845	620214.44	4261674.50	RISK		
4,846	620214.44	4261174.50	RISK		
4,847	620214.44	4260674.50	RISK		
4,848	620214.44	4260174.50	RISK		
4,849	620214.44	4259674.50	RISK		
4,850	620214.44	4259174.50	RISK		
4,851	620214.44	4258674.50	RISK		
4,852	620214.44	4258174.50	RISK		
4,853	620214.44	4257674.50	RISK		
4,854	620214.44	4257174.50	RISK		
4,855	620214.44	4256674.50	RISK		
4,856	626714.44	4263674.50	RISK		
4,857	626714.44	4264174.50	RISK		
4,858	626714.44	4264674.50	RISK		
4,859	626714.44	4265174.50	RISK		
4,860	626714.44	4265674.50	RISK		
4,861	626714.44	4266174.50	RISK		
4,862	626714.44	4266674.50	RISK		
4,863	626714.44	4267174.50	RISK		
4,864	626714.44	4267674.50	RISK		
4,865	626714.44	4268174.50	RISK		
4,866	626714.44	4268674.50	RISK		
4,867	626714.44	4269174.50	RISK		

# Receptor Pathway

AERMOD

4,868	626714.44	4269674.50	RISK	Option not Selected	Option not Selected
4,869	626714.44	4270174.50	RISK		
4,870	626714.44	4270674.50	RISK		
4,871	626714.44	4271174.50	RISK		
4,872	626714.44	4271674.50	RISK		
4,873	626714.44	4272174.50	RISK		
4,874	626714.44	4272674.50	RISK		
4,875	626714.44	4273174.50	RISK		
4,876	626714.44	4273674.50	RISK		
4,877	626714.44	4274174.50	RISK		
4,878	626714.44	4274674.50	RISK		
4,879	626714.44	4275174.50	RISK		
4,880	626714.44	4275674.50	RISK		
4,881	626714.44	4276174.50	RISK		
4,882	626714.44	4276674.50	RISK		
4,883	626214.44	4263674.50	RISK		
4,884	626214.44	4264174.50	RISK		
4,885	626214.44	4264674.50	RISK		
4,886	626214.44	4265174.50	RISK		
4,887	626214.44	4265674.50	RISK		
4,888	626214.44	4266174.50	RISK		
4,889	626214.44	4266674.50	RISK		
4,890	626214.44	4267174.50	RISK		
4,891	626214.44	4267674.50	RISK		
4,892	626214.44	4268174.50	RISK		
4,893	626214.44	4268674.50	RISK		
4,894	626214.44	4269174.50	RISK		
4,895	626214.44	4269674.50	RISK		
4,896	626214.44	4270174.50	RISK		
4,897	626214.44	4270674.50	RISK		
4,898	626214.44	4271174.50	RISK		
4,899	626214.44	4271674.50	RISK		
4,900	626214.44	4272174.50	RISK		
4,901	626214.44	4272674.50	RISK		
4,902	626214.44	4273174.50	RISK		
4,903	626214.44	4273674.50	RISK		
4,904	626214.44	4274174.50	RISK		
4,905	626214.44	4274674.50	RISK		
4,906	626214.44	4275174.50	RISK		
4,907	626214.44	4275674.50	RISK		
4,908	626214.44	4276174.50	RISK		

# Receptor Pathway

AERMOD

4,909	626214.44	4276674.50	RISK	Option not Selected	Option not Selected
4,910	625714.44	4263674.50	RISK		
4,911	625714.44	4264174.50	RISK		
4,912	625714.44	4264674.50	RISK		
4,913	625714.44	4265174.50	RISK		
4,914	625714.44	4265674.50	RISK		
4,915	625714.44	4266174.50	RISK		
4,916	625714.44	4266674.50	RISK		
4,917	625714.44	4267174.50	RISK		
4,918	625714.44	4267674.50	RISK		
4,919	625714.44	4268174.50	RISK		
4,920	625714.44	4268674.50	RISK		
4,921	625714.44	4269174.50	RISK		
4,922	625714.44	4269674.50	RISK		
4,923	625714.44	4270174.50	RISK		
4,924	625714.44	4270674.50	RISK		
4,925	625714.44	4271174.50	RISK		
4,926	625714.44	4271674.50	RISK		
4,927	625714.44	4272174.50	RISK		
4,928	625714.44	4272674.50	RISK		
4,929	625714.44	4273174.50	RISK		
4,930	625714.44	4273674.50	RISK		
4,931	625714.44	4274174.50	RISK		
4,932	625714.44	4274674.50	RISK		
4,933	625714.44	4275174.50	RISK		
4,934	625714.44	4275674.50	RISK		
4,935	625714.44	4276174.50	RISK		
4,936	625714.44	4276674.50	RISK		
4,937	625214.44	4263674.50	RISK		
4,938	625214.44	4264174.50	RISK		
4,939	625214.44	4264674.50	RISK		
4,940	625214.44	4265174.50	RISK		
4,941	625214.44	4265674.50	RISK		
4,942	625214.44	4266174.50	RISK		
4,943	625214.44	4266674.50	RISK		
4,944	625214.44	4267174.50	RISK		
4,945	625214.44	4267674.50	RISK		
4,946	625214.44	4268174.50	RISK		
4,947	625214.44	4268674.50	RISK		
4,948	625214.44	4269174.50	RISK		
4,949	625214.44	4269674.50	RISK		

# Receptor Pathway

AERMOD

4,950	625214.44	4270174.50	RISK	Option not Selected	Option not Selected
4,951	625214.44	4270674.50	RISK		
4,952	625214.44	4271174.50	RISK		
4,953	625214.44	4271674.50	RISK		
4,954	625214.44	4272174.50	RISK		
4,955	625214.44	4272674.50	RISK		
4,956	625214.44	4273174.50	RISK		
4,957	625214.44	4273674.50	RISK		
4,958	625214.44	4274174.50	RISK		
4,959	625214.44	4274674.50	RISK		
4,960	625214.44	4275174.50	RISK		
4,961	625214.44	4275674.50	RISK		
4,962	625214.44	4276174.50	RISK		
4,963	625214.44	4276674.50	RISK		
4,964	624714.44	4263674.50	RISK		
4,965	624714.44	4264174.50	RISK		
4,966	624714.44	4264674.50	RISK		
4,967	624714.44	4265174.50	RISK		
4,968	624714.44	4265674.50	RISK		
4,969	624714.44	4266174.50	RISK		
4,970	624714.44	4266674.50	RISK		
4,971	624714.44	4267174.50	RISK		
4,972	624714.44	4267674.50	RISK		
4,973	624714.44	4268174.50	RISK		
4,974	624714.44	4268674.50	RISK		
4,975	624714.44	4269174.50	RISK		
4,976	624714.44	4269674.50	RISK		
4,977	624714.44	4270174.50	RISK		
4,978	624714.44	4270674.50	RISK		
4,979	624714.44	4271174.50	RISK		
4,980	624714.44	4271674.50	RISK		
4,981	624714.44	4272174.50	RISK		
4,982	624714.44	4272674.50	RISK		
4,983	624714.44	4273174.50	RISK		
4,984	624714.44	4273674.50	RISK		
4,985	624714.44	4274174.50	RISK		
4,986	624714.44	4274674.50	RISK		
4,987	624714.44	4275174.50	RISK		
4,988	624714.44	4275674.50	RISK		
4,989	624714.44	4276174.50	RISK		
4,990	624714.44	4276674.50	RISK		

# Receptor Pathway

AERMOD

4,991	624214.44	4263674.50	RISK	Option not Selected	Option not Selected
4,992	624214.44	4264174.50	RISK		
4,993	624214.44	4264674.50	RISK		
4,994	624214.44	4265174.50	RISK		
4,995	624214.44	4265674.50	RISK		
4,996	624214.44	4266174.50	RISK		
4,997	624214.44	4266674.50	RISK		
4,998	624214.44	4267174.50	RISK		
4,999	624214.44	4267674.50	RISK		
5,000	624214.44	4268174.50	RISK		
5,001	624214.44	4268674.50	RISK		
5,002	624214.44	4269174.50	RISK		
5,003	624214.44	4269674.50	RISK		
5,004	624214.44	4270174.50	RISK		
5,005	624214.44	4270674.50	RISK		
5,006	624214.44	4271174.50	RISK		
5,007	624214.44	4271674.50	RISK		
5,008	624214.44	4272174.50	RISK		
5,009	624214.44	4272674.50	RISK		
5,010	624214.44	4273174.50	RISK		
5,011	624214.44	4273674.50	RISK		
5,012	624214.44	4274174.50	RISK		
5,013	624214.44	4274674.50	RISK		
5,014	624214.44	4275174.50	RISK		
5,015	624214.44	4275674.50	RISK		
5,016	624214.44	4276174.50	RISK		
5,017	624214.44	4276674.50	RISK		
5,018	623714.44	4263674.50	RISK		
5,019	623714.44	4264174.50	RISK		
5,020	623714.44	4264674.50	RISK		
5,021	623714.44	4265174.50	RISK		
5,022	623714.44	4265674.50	RISK		
5,023	623714.44	4266174.50	RISK		
5,024	623714.44	4266674.50	RISK		
5,025	623714.44	4267174.50	RISK		
5,026	623714.44	4267674.50	RISK		
5,027	623714.44	4268174.50	RISK		
5,028	623714.44	4268674.50	RISK		
5,029	623714.44	4269174.50	RISK		
5,030	623714.44	4269674.50	RISK		
5,031	623714.44	4270174.50	RISK		

# Receptor Pathway

AERMOD

5,032	623714.44	4270674.50	RISK	Option not Selected	Option not Selected
5,033	623714.44	4271174.50	RISK		
5,034	623714.44	4271674.50	RISK		
5,035	623714.44	4272174.50	RISK		
5,036	623714.44	4272674.50	RISK		
5,037	623714.44	4273174.50	RISK		
5,038	623714.44	4273674.50	RISK		
5,039	623714.44	4274174.50	RISK		
5,040	623714.44	4274674.50	RISK		
5,041	623714.44	4275174.50	RISK		
5,042	623714.44	4275674.50	RISK		
5,043	623714.44	4276174.50	RISK		
5,044	623714.44	4276674.50	RISK		
5,045	623214.44	4263674.50	RISK		
5,046	623214.44	4264174.50	RISK		
5,047	623214.44	4264674.50	RISK		
5,048	623214.44	4265174.50	RISK		
5,049	623214.44	4265674.50	RISK		
5,050	623214.44	4266174.50	RISK		
5,051	623214.44	4266674.50	RISK		
5,052	623214.44	4267174.50	RISK		
5,053	623214.44	4267674.50	RISK		
5,054	623214.44	4268174.50	RISK		
5,055	623214.44	4268674.50	RISK		
5,056	623214.44	4269174.50	RISK		
5,057	623214.44	4269674.50	RISK		
5,058	623214.44	4270174.50	RISK		
5,059	623214.44	4270674.50	RISK		
5,060	623214.44	4271174.50	RISK		
5,061	623214.44	4271674.50	RISK		
5,062	623214.44	4272174.50	RISK		
5,063	623214.44	4272674.50	RISK		
5,064	623214.44	4273174.50	RISK		
5,065	623214.44	4273674.50	RISK		
5,066	623214.44	4274174.50	RISK		
5,067	623214.44	4274674.50	RISK		
5,068	623214.44	4275174.50	RISK		
5,069	623214.44	4275674.50	RISK		
5,070	623214.44	4276174.50	RISK		
5,071	623214.44	4276674.50	RISK		
5,072	622714.44	4263674.50	RISK		

# Receptor Pathway

AERMOD

5,073	622714.44	4264174.50	RISK	Option not Selected	Option not Selected
5,074	622714.44	4264674.50	RISK		
5,075	622714.44	4265174.50	RISK		
5,076	622714.44	4265674.50	RISK		
5,077	622714.44	4266174.50	RISK		
5,078	622714.44	4266674.50	RISK		
5,079	622714.44	4267174.50	RISK		
5,080	622714.44	4267674.50	RISK		
5,081	622714.44	4268174.50	RISK		
5,082	622714.44	4268674.50	RISK		
5,083	622714.44	4269174.50	RISK		
5,084	622714.44	4269674.50	RISK		
5,085	622714.44	4270174.50	RISK		
5,086	622714.44	4270674.50	RISK		
5,087	622714.44	4271174.50	RISK		
5,088	622714.44	4271674.50	RISK		
5,089	622714.44	4272174.50	RISK		
5,090	622714.44	4272674.50	RISK		
5,091	622714.44	4273174.50	RISK		
5,092	622714.44	4273674.50	RISK		
5,093	622714.44	4274174.50	RISK		
5,094	622714.44	4274674.50	RISK		
5,095	622714.44	4275174.50	RISK		
5,096	622714.44	4275674.50	RISK		
5,097	622714.44	4276174.50	RISK		
5,098	622714.44	4276674.50	RISK		
5,099	622214.44	4263674.50	RISK		
5,100	622214.44	4264174.50	RISK		
5,101	622214.44	4264674.50	RISK		
5,102	622214.44	4265174.50	RISK		
5,103	622214.44	4265674.50	RISK		
5,104	622214.44	4266174.50	RISK		
5,105	622214.44	4266674.50	RISK		
5,106	622214.44	4267174.50	RISK		
5,107	622214.44	4267674.50	RISK		
5,108	622214.44	4268174.50	RISK		
5,109	622214.44	4268674.50	RISK		
5,110	622214.44	4269174.50	RISK		
5,111	622214.44	4269674.50	RISK		
5,112	622214.44	4270174.50	RISK		
5,113	622214.44	4270674.50	RISK		

# Receptor Pathway

AERMOD

5,114	622214.44	4271174.50	RISK	Option not Selected	Option not Selected
5,115	622214.44	4271674.50	RISK		
5,116	622214.44	4272174.50	RISK		
5,117	622214.44	4272674.50	RISK		
5,118	622214.44	4273174.50	RISK		
5,119	622214.44	4273674.50	RISK		
5,120	622214.44	4274174.50	RISK		
5,121	622214.44	4274674.50	RISK		
5,122	622214.44	4275174.50	RISK		
5,123	622214.44	4275674.50	RISK		
5,124	622214.44	4276174.50	RISK		
5,125	622214.44	4276674.50	RISK		
5,126	621714.44	4263674.50	RISK		
5,127	621714.44	4264174.50	RISK		
5,128	621714.44	4264674.50	RISK		
5,129	621714.44	4265174.50	RISK		
5,130	621714.44	4265674.50	RISK		
5,131	621714.44	4266174.50	RISK		
5,132	621714.44	4266674.50	RISK		
5,133	621714.44	4267174.50	RISK		
5,134	621714.44	4267674.50	RISK		
5,135	621714.44	4268174.50	RISK		
5,136	621714.44	4268674.50	RISK		
5,137	621714.44	4269174.50	RISK		
5,138	621714.44	4269674.50	RISK		
5,139	621714.44	4270174.50	RISK		
5,140	621714.44	4270674.50	RISK		
5,141	621714.44	4271174.50	RISK		
5,142	621714.44	4271674.50	RISK		
5,143	621714.44	4272174.50	RISK		
5,144	621714.44	4272674.50	RISK		
5,145	621714.44	4273174.50	RISK		
5,146	621714.44	4273674.50	RISK		
5,147	621714.44	4274174.50	RISK		
5,148	621714.44	4274674.50	RISK		
5,149	621714.44	4275174.50	RISK		
5,150	621714.44	4275674.50	RISK		
5,151	621714.44	4276174.50	RISK		
5,152	621714.44	4276674.50	RISK		
5,153	621214.44	4263674.50	RISK		
5,154	621214.44	4264174.50	RISK		

# Receptor Pathway

AERMOD

5,155	621214.44	4264674.50	RISK	Option not Selected	Option not Selected
5,156	621214.44	4265174.50	RISK		
5,157	621214.44	4265674.50	RISK		
5,158	621214.44	4266174.50	RISK		
5,159	621214.44	4266674.50	RISK		
5,160	621214.44	4267174.50	RISK		
5,161	621214.44	4267674.50	RISK		
5,162	621214.44	4268174.50	RISK		
5,163	621214.44	4268674.50	RISK		
5,164	621214.44	4269174.50	RISK		
5,165	621214.44	4269674.50	RISK		
5,166	621214.44	4270174.50	RISK		
5,167	621214.44	4270674.50	RISK		
5,168	621214.44	4271174.50	RISK		
5,169	621214.44	4271674.50	RISK		
5,170	621214.44	4272174.50	RISK		
5,171	621214.44	4272674.50	RISK		
5,172	621214.44	4273174.50	RISK		
5,173	621214.44	4273674.50	RISK		
5,174	621214.44	4274174.50	RISK		
5,175	621214.44	4274674.50	RISK		
5,176	621214.44	4275174.50	RISK		
5,177	621214.44	4275674.50	RISK		
5,178	621214.44	4276174.50	RISK		
5,179	621214.44	4276674.50	RISK		
5,180	620714.44	4263674.50	RISK		
5,181	620714.44	4264174.50	RISK		
5,182	620714.44	4264674.50	RISK		
5,183	620714.44	4265174.50	RISK		
5,184	620714.44	4265674.50	RISK		
5,185	620714.44	4266174.50	RISK		
5,186	620714.44	4266674.50	RISK		
5,187	620714.44	4267174.50	RISK		
5,188	620714.44	4267674.50	RISK		
5,189	620714.44	4268174.50	RISK		
5,190	620714.44	4268674.50	RISK		
5,191	620714.44	4269174.50	RISK		
5,192	620714.44	4269674.50	RISK		
5,193	620714.44	4270174.50	RISK		
5,194	620714.44	4270674.50	RISK		
5,195	620714.44	4271174.50	RISK		

# Receptor Pathway

AERMOD

5,196	620714.44	4271674.50	RISK	Option not Selected	Option not Selected
5,197	620714.44	4272174.50	RISK		
5,198	620714.44	4272674.50	RISK		
5,199	620714.44	4273174.50	RISK		
5,200	620714.44	4273674.50	RISK		
5,201	620714.44	4274174.50	RISK		
5,202	620714.44	4274674.50	RISK		
5,203	620714.44	4275174.50	RISK		
5,204	620714.44	4275674.50	RISK		
5,205	620714.44	4276174.50	RISK		
5,206	620714.44	4276674.50	RISK		
5,207	620214.44	4263674.50	RISK		
5,208	620214.44	4264174.50	RISK		
5,209	620214.44	4264674.50	RISK		
5,210	620214.44	4265174.50	RISK		
5,211	620214.44	4265674.50	RISK		
5,212	620214.44	4266174.50	RISK		
5,213	620214.44	4266674.50	RISK		
5,214	620214.44	4267174.50	RISK		
5,215	620214.44	4267674.50	RISK		
5,216	620214.44	4268174.50	RISK		
5,217	620214.44	4268674.50	RISK		
5,218	620214.44	4269174.50	RISK		
5,219	620214.44	4269674.50	RISK		
5,220	620214.44	4270174.50	RISK		
5,221	620214.44	4270674.50	RISK		
5,222	620214.44	4271174.50	RISK		
5,223	620214.44	4271674.50	RISK		
5,224	620214.44	4272174.50	RISK		
5,225	620214.44	4272674.50	RISK		
5,226	620214.44	4273174.50	RISK		
5,227	620214.44	4273674.50	RISK		
5,228	620214.44	4274174.50	RISK		
5,229	620214.44	4274674.50	RISK		
5,230	620214.44	4275174.50	RISK		
5,231	620214.44	4275674.50	RISK		
5,232	620214.44	4276174.50	RISK		
5,233	620214.44	4276674.50	RISK		

# Receptor Pathway

AERMOD

## Fenceline Grid

Option not in use

# Meteorology Pathway

AERMOD

## Met Input Data

### Surface Met Data

Filename: C:\Users\Weirich\AECOM Projects\Old Sac Train\OldSacGP.SFC  
Format Type: Default AERMET format

### Profile Met Data

Filename: C:\Users\Weirich\AECOM Projects\Old Sac Train\OldSacGP.PFL  
Format Type: Default AERMET format

### Potential Temperature Profile

Base Elevation above MSL (for Primary Met Tower): 5.00 [m]

### Optional Wind Direction

Rotation [deg]:

## Meteorological Station Data

Stations	Station No.	Year	X Coordinate [m]	Y Coordinate [m]	Station Name
Surface	23232	1992			SACRAMENTO/EXECUTIVE ARPT
Upper Air	23230	1992			OAKLAND/WSO AP

## Data Period

### Read All Met. File?



Yes



No





















## Wind Speed Categories

Stability Category	Wind Speed [m/s]	Stability Category	Wind Speed [m/s]
A	1.54	D	8.23
B	3.09	E	10.8
C	5.14	F	No Upper Bound

# Output Pathway

AERMOD

## Tabular Printed Outputs

Short Term Averaging Period	RECTABLE Highest Values Table										MAXTABLE Maximum Values Table	DAYTABLE Daily Values Table
	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th		
ALL												No
1												No

# Output Pathway

AERMOD

## Contour Plot Files (PLOTFILE)

Path for PLOTFILES: OldSac.AD

Averaging Period	Source Group ID	High Value	File Name
1	ALL	1st	01H1GALL.PLT
Annual	ALL	N/A	AN00GALL.PLT

# Control Pathway

AERMOD

## Dispersion Options

<b>Titles</b> C:\Users\WeirichJ\AECOM Projects\Old Sac Train\OldSac\OldSac.isc	
<b>Dispersion Options</b> <input type="checkbox"/> Regulatory Default <input checked="" type="checkbox"/> Non-Default Options	<b>Dispersion Coefficient</b>  Rural
<input type="checkbox"/> No stack-tip downwash <input type="checkbox"/> Run in screening mode <input type="checkbox"/> By-pass date checking for non-sequential met data file <input type="checkbox"/> Option for modeling conversion of NOx to NO2 <input checked="" type="checkbox"/> Flat Terrain <input type="checkbox"/> Capped and Horizontal Stack Releases (BETA) <input type="checkbox"/> SCIM (Sampled Chronological Input Model) <input type="checkbox"/> Gas Dry Deposition <input checked="" type="checkbox"/> Fast All Sources <input type="checkbox"/> Fast Area Sources <input type="checkbox"/> Optimized Area Source Plume Depletion	<b>Output Type</b> <input checked="" type="checkbox"/> Concentration <input type="checkbox"/> Total Deposition (Dry & Wet) <input type="checkbox"/> Dry Deposition <input type="checkbox"/> Wet Deposition  <b>Plume Depletion</b> <input type="checkbox"/> Dry Removal <input type="checkbox"/> Wet Removal  <b>Output Warnings</b> <input type="checkbox"/> No Output Warnings <input type="checkbox"/> Non-fatal Warnings for Non-sequential Met Data

## Pollutant / Averaging Time / Terrain Options

<b>Pollutant Type</b>  OTHER - ONEGPS	<b>Exponential Decay</b>  <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<b>Averaging Time Options</b>  Hours <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 6 <input type="checkbox"/> 8 <input type="checkbox"/> 12 <input type="checkbox"/> 24  <input type="checkbox"/> Month <input type="checkbox"/> Period <input checked="" type="checkbox"/> Annual	<b>Terrain Height Options</b>  <input checked="" type="checkbox"/> Flat <input type="checkbox"/> Elevated
<b>Flagpole Receptors</b>  <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  Default Height = 0.00 m	

<input type="checkbox"/> Model Debug File	<input type="checkbox"/> Met Profile Debug File
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## Old Sacramento State Park Dispersion Modeling Risk Assessment Calculations

	MEIC	30y MEIR	70y MEIR	MEIW
Cair	0.022	0.01	0.01	0.022
DBR	452	271	271	149
A	1	1	1	1
EF	52	52	52	52
ED	9	30	70	70
AT	3285	10950	25550	25550
Dose-Inh	1.417E-06	3.86E-07	3.86E-07	4.67E-07

mg/kg-day

				1.1 mg/kg-day ^-1 DPM Cancer Potency Factor (Table 7.1, OEHHA 2003)
	1.56E-06	4.25E-07	4.25E-07	5.14E-07
	1.56	0.42	0.42	0.39
				cancer risk per million
	0.022	0.01	0.01	0.022
	5.00	5.00	5.00	5.00
	0.11	0.05	0.05	0.11
				ug/m3 -annual (Cair)
				Chronic Reference Exposure Level for DPM (Table 6.2, OEHHA 2003)
				Hazard Index

Formulas (from OEHHA 2003)

### 1. Formula EQ 5.4.1 A:

$$\text{Dose-inh} = \frac{C_{\text{air}} * \{\text{DBR}\} * A * EF * ED * 10^{-6}}{AT} \quad (\text{EQ 5.4.1 A})$$

where:

- Dose-inh = Dose through inhalation (mg/kg/d)
- $10^{-6}$  = Micrograms to milligrams conversion, Liters to cubic meters conversion
- $C_{\text{air}}$  = Concentration in air ( $\mu\text{g}/\text{m}^3$ )
- $\{\text{DBR}\}$  = Daily breathing rate (L/kg body weight - day)
- A = Inhalation absorption factor
- EF = Exposure frequency (days/year)
- ED = Exposure duration (years)

ED = Exposure duration (years)  
 AT = Averaging time period over which exposure is averaged, in days (e.g., 25,550 d for 70 yr for cancer risk)

**2. Recommended default values for EO 5.4.1 A:**

- a. EF = 350 d/y
- b. ED = 9; 30; or 70 yr
- c. AT = 25,550 days
- d. A = 1
- e. {DBR} 9, 30 & 70 year exposure = see Table 5.4
- f. {DBR} 30 and 70 year exposure = see Table 5. 5 for parametric models (distributions for Tier 3 stochastic risk assessment)

*Table 5.4 Point Estimates for Daily Breathing Rate for 9, 30, and 70-year Exposure Durations (DBR) (L/kg BW \* Day)*

9-Year Exposure Duration		30 & 70-Year Exposure Duration		Off-site <sup>1</sup> Worker
Average	High End	Average	High End	(Single Value)
452	581	271	393	149

(Inhalation Dose (mg/kg-day)) x (Cancer Potency (mg/kg-day)<sup>-1</sup>) = Cancer Risk

$$\text{Hazard Quotient} = \frac{\text{Annual Average Concentration } (\mu\text{g}/\text{m}^3)}{\text{Chronic Reference Exposure Level } (\mu\text{g}/\text{m}^3)}$$

## APPENDIX G

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### Noise Prediction Model



**Appendix G**  
**Traffic Noise Prediction Model, (FHWA RD-77-108)**  
**Model Input Sheet**



**Project Name :** OSSHP  
**Project Number :**  
**Modeling Condition :** Existing and Ex+Prj  
**Ground Type :** Soft  
**Metric (L<sub>eq</sub>, L<sub>dn</sub>, CNEL) :** Ldn

**K Factor :** N/A  
**Traffic Desc. (Peak or ADT) :** ADT

Segment	Roadway	Segment		Traffic Vol.	Speed	Distance	% Autos	%MT	% HT	Day %	Eve %	Night %	Offset (dB)
		From	To		(Mph)	to CL							
1	J St	5th	16th	20,741	35	100	97	2	1	87		13	
2	J St + Project	5th	16th	22,960	35	100	97	2	1	87		13	
3	Meadowview Rd	I-5	Mack	35,213	45	100	97	2	1	87		13	
4	Meadowview Rd + Project	I-5	Mack	37,432	45	100	97	2	1	87		13	

Appendix G  
**Traffic Noise Prediction Model, (FHWA RD-77-108)**  
 Predicted Noise Levels



**Project Name :** OSSHP  
**Project Number :**  
**Modeling Condition :** Existing and Ex+Prj  
**Metric (Leq, Ldn, CNEL) :** Ldn

Segment	Roadway	Segment		Noise Levels, dB Ldn				Distance to Traffic Noise Contours, Feet				
		From	To	Auto	MT	HT	Total	70 dB	65 dB	60 dB	55 dB	50 dB
1	J St	5th	16th	61.2	54.0	56.2	62.9	34	73	157	339	730
2	J St + Project	5th	16th	61.6	54.4	56.6	63.4	36	78	168	362	781
3	Meadowview Rd	I-5	Mack	66.6	58.0	59.5	67.8	72	155	333	718	1548
4	Meadowview Rd + Project	I-5	Mack	66.9	58.3	59.7	68.1	75	161	347	748	1612